

# INFORMAL SEQUENCE LISTING

SEQ ID NO:1  
SIZE: 10  
PRT-- HIV-Tat

Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg

SEQ ID NO: 2  
SIZE: 11  
PRT HIV-Tat Variant

Tyr-Ala-Arg-Lys-Ala-Arg-Arg-Gln-Ala-Arg-Arg

SEQ ID NO: 3  
SIZE: 11  
PRT-HIV-Tat Variant

Tyr-Ala-Arg-Ala-Ala-Ala-Arg-Gln-Ala-Arg-Ala

SEQ ID NO: 4  
SIZE: 11  
PRT-HIV-Tat Variant

Tyr-Ala-Arg-Ala-Ala-Arg-Ala-Ala-Arg-Arg-Arg

SEQ ID NO: 5  
SIZE: 11  
PRT: HIV-Tat Variant

Tyr-Ala-Arg-Ala-Ala-Arg-Ala-Ala-Arg-Arg-Ala

SEQ ID NO: 6  
SIZE: 11  
HIV-Tat Variant

Tyr-Ala-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg

SEQ ID NO: 7  
SIZE: 11  
PRT-HIV-Tat Variant

Tyr-Ala-Ala-Ala-Ala-Arg-Arg-Arg-Arg-Arg-Arg

SEQ ID NO: 8  
SIZE: 11  
PRT-HIV-Tat Variant

Ala-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg

SEQ ID NO: 9  
SIZE: 34  
PRT-HSV VP22

Asp-Ala-Ala-Thr-Ala-Thr-Arg-Gly-Arg-Ser-Ala-Ala-Ser-Arg-Pro-Thr-Glu-Arg-  
Pro-Arg-Ala-Pro-Ala-Arg-Ser-Ala-Ser-Arg-Pro-Arg-Arg-Pro-Val-Glu

SEQ ID NO: 10  
 SIZE: 16  
 PRT-Antennapedia third Helix, 43-58, Penetratin-1  
 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys

SEQ ID NO: 11  
 SIZE: 16  
 PRT-Antennapedia third Helix, 53-43  
 Lys-Lys-Trp-Lys-Met-Arg-Arg-Asn-Gln-Phe-Trp-Ile-Lys-Ile-Gln-Arg

SEQ ID NO: 12  
 SIZE: 16  
 PRT-Antennapedia third Helix, 43-58, D-amino acids  
 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys

SEQ ID NO: 13  
 SIZE: 16  
 PRT-Antennapedia third Helix, 43-58, Pro50,  
 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Pro-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys

SEQ ID NO: 14  
 SIZE: 16  
 PRT-Antennapedia third Helix, 43-58, 3-Pro  
 Arg-Gln-Pro-Lys-Ile-Trp-Phe-Pro-Asn-Arg-Arg-Lys-Pro-Trp-Lys-Lys

SEQ ID NO: 15  
 SIZE:  
 PRT-Antennapedia third Helix, 43-58, R52M/M54R,  
 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Met-Arg-Arg-Lys-Trp-Lys-Lys)

SEQ ID NO: 16  
 SIZE: 16  
 PRT-Antennapedia third Helix, 43-58, 7-Arg  
 Arg-Gln-Ile-Arg-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Arg -Trp-Arg -Arg

SEQ ID NO: 17  
 SIZE: 16  
 PRT-Antennapedia third Helix, 43-58, W/R  
 Arg-Arg-Trp-Arg-Arg-Trp-Trp-Arg-Arg-Trp-Trp-Arg-Arg-Trp-Arg-Arg

SEQ ID NO: 18  
 SIZE: 16  
 PRT-Kaposi's FGF signal sequence  
 Ala-Ala-Val-Ala-Leu-Leu-Pro-Ala-Val-Leu-Leu-Ala-Leu-Leu-Ala-Pro

SEQ ID NO: 19  
 SIZE: 20  
 PRT: amino terminal secretory signal of human IL-2  
 Met-Tyr-Arg-Met-Gln-Leu-Leu-Ser-Cys-Ile-Ala-Leu-Ser-Leu-Ala-Leu-Val-Thr-Asn-Ser

SEQ ID NO: 20  
SIZE: 20  
PRT-IL-2-4 signal sequence

Met-Tyr-Arg-Met-Ala-Leu-Leu-Ser-Cys-Ile-Ala-Leu-Ser-Leu-Ala-Leu-Val-Thr-Asn-Ser

SEQ ID NO: 21  
SIZE: 202  
PRT-HSV VP22 sequence

Met-Thr-Ser-Arg-Arg-Ser-Val-Lys-Ser-Gly-Lys-Arg-Glu-Val-Lys-Arg-Asp-Glu-Tyr-Glu-Asp-Leu-Tyr-Tyr-Thr-Lys-Ser-Ser-Gly-Ile-Ala-Ser-Lys-Asp-Ser-Lys-Lys-Asp-Thr-Ser-Arg-Arg-Gly-Ala-Leu-Gln-Thr-Arg-Ser-Arg-Gln-Arg-Gly-Glu-Val-Arg-Phe-Val-Gln-Tyr-Asp-Glu-Ser-Asp-Tyr-Ala-Leu-Tyr-Gly-Gly-Ser-Ser-Ser-Glu-Asp-Asp-Glu-His-Pro-Glu-Val-Lys-Arg-Thr-Arg-Arg-Lys-Val-Ser-Gly-Ala-Val-Leu-Ser-Gly-Lys-Gly-Lys-Ala-Arg-Ala-Lys-Lys-Lys-Lys-Ala-Gly-Ser-Gly-Gly-Ala-Gly-Arg-Thr-Lys-Thr-Thr-Ala-Lys-Arg-Ala-Lys-Arg-Thr-Gln-Arg-Val-Ala-Thr-Lys-Ala-Lys-Ala-Ala-Lys-Ala-Ala-Glu-Thr-Thr-Arg-Gly-Arg-Lys-Ser-Ala-Gln-Lys-Glu-Ser-Ala-Ala-Leu-Lys-Asp-Ala-Lys-Ala-Ser-Thr-Ala-Lys-Thr-Arg-Ser-Lys-Thr-Lys-Ala-Gln-Gly-Leu-Ala-Arg-Lys-Leu-His-Phe-Ser-Thr-Ala-Lys-Lys-Asn-Lys-Asp-Ala-Lys-Trp-Thr-Lys-Arg-Val-Ala-Gly-Phe-Asn-Lys-Arg-Val-Phe-Cys-Ala-Ala-Val-Gly-Arg-Leu-Ala-Ala-Met-His-Ala-Arg-Met-Ala-Ala-Val-Gln-Leu-Trp-Asp-Met-Ser-Arg-Lys-Arg-Thr-Asp-Glu-Asp-Leu-Asn-Glu-Leu-Leu-Gly-Ile-Thr-Thr-Ile-Arg-Val-Thr-Val-Cys-Glu-Gly-Lys-Asn-Leu-Leu-Gln-Arg-Ala-Asn-Glu-Leu-Val-Asn-Lys-Asp-Val-Val-Gln-Asp-Val-Asp-Ala-Ala-Thr-Ala-Thr-Arg-Gly-Arg-Ser-Ala-Ala-Ser-Arg-Lys-Thr-Glu-Arg-Lys-Arg-Ala-Lys-Ala-Arg-Ser-Ala-Ser-Arg-Lys-Arg-Arg-Lys-Val-Glu-Ser

SEQ ID NO: 22  
SIZE: 23  
DNA-T7 RNAP promoter:

TAATACGACTCACTATAGGGAGA

SEQ ID NO: 23  
SIZE 23  
DNA -SP6 RNAP promoter:

ATTTAGGTGACACTATAGAAGAA

SEQ ID NO: 24  
SIZE 23  
DNA-T3 RNAP promoter:

AATTAACCCTCACTAAAGGGAGA

SEQ ID NO: 25  
SIZE 23  
DNA-K11 RNAP promoter:

AATTAGGGCACACTATAGGGAGA

SEQ ID NO:26  
SIZE 24  
PRT IL-4 signal sequence

Met-Gly-Leu-Thr-Ser-Gln-Leu-Leu-Pro-Pro-Leu-Phe-Phe-Leu-Leu-Ala-Cys-Ala-Gly-Asn-Phe-Val-His-Gly

SEQ ID NO:27  
SIZE 302  
PRT HSV VP22

Met-Thr-Ser-Arg-Arg-Ser-Val-Lys-Ser-Gly-Pro-Arg-Glu-Val-Pro-Arg-Asp-Glu-Tyr-Glu-Asp-Leu-Tyr-Tyr-Thr-Pro-Ser-Ser-Gly-Met-Ala-Ser-Pro-Asp-Ser-Pro-Pro-Asp-Thr-Ser-Arg-Arg-Gly-Ala-Leu-Gln-Thr-Arg-Ser-Arg-Gln-Arg-Gly-Glu-Val-Arg-Phe-Val-Gln-Tyr-Asp-Glu-Ser-Asp-Tyr-Ala-Leu-Tyr-Gly-Gly-Ser-Ser-Ser-Glu-Asp-Asp-Glu-His-Pro-Glu-Val-Pro-Arg-Thr-Arg-Arg-Pro-Val-Ser-Gly-Ala-Val-Leu-Ser-Gly-Pro-Gly-Pro-Ala-Arg-Ala-Pro-Pro-Pro-Ala-Gly-Ser-Gly-Gly-Ala-Gly-Arg-Thr-Pro-Thr-Thr-Ala-Pro-Arg-Ala-Pro-Arg-Thr-Gln-Arg-Val-Ala-Thr-Lys-Ala-Pro-Ala-Ala-Pro-Ala-Ala-Glu-Thr-Thr-Arg-Gly-Arg-Lys-Ser-Ala-Gln-Pro-Glu-Ser-Ala-Ala-Leu-Pro-Asp-Ala-Pro-Ala-Ser-Thr-Ala-Pro-Thr-Arg-Ser-Lys-Thr-Pro-Ala-Gln-Gly-Leu-Ala-Arg-Lys-Leu-His-Phe-Ser-Thr-Ala-Pro-Pro-Asn-Pro-Asp-Ala-Pro-Trp-Thr-Pro-Arg-Val-Ala-Gly-Phe-Asn-Lys-Arg-Val-Phe-Cys-Ala-Ala-Val-Gly-Arg-Leu-Ala-Ala-Met-His-Ala-Arg-Met-Ala-Ala-Val-Gln-Leu-Trp-Asp-Met-Ser-Arg-Pro-Arg-Thr-Asp-Glu-Asp-Leu-Asn-Glu-Leu-Leu-Gly-Ile-Thr-Thr-Ile-Arg-Val-Thr-Val-Cys-Glu-Gly-Lys-Asn-Leu-Leu-Gln-Arg-Ala-Asn-Glu-Leu-Val-Asn-Pro-Asp-Val-Val-Gln-Asp-Val-Asp-Ala-Ala-Thr-Ala-Thr-Arg-Gly-Arg-Ser-Ala-Ala-Ser-Arg-Pro-Thr-Glu-Arg-Pro-Arg-Ala-Pro-Ala-Arg-Ser-Ala-Ser-Arg-Pro-Arg-Arg-Pro-Val-Glu-Gly

SEQ ID NO:28  
SIZE 6  
PRT: Artificial

Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:29  
SIZE 7  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:30  
SIZE 8  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:31  
SIZE 9  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:32  
SIZE 10  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:33  
SIZE 11  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:34  
SIZE 12  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:35  
SIZE 13  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:36  
SIZE 14  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:37  
SIZE 15  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:38  
SIZE 16  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:39  
SIZE 17  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:40  
SIZE 18  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:41  
SIZE 19  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:42  
SIZE 20  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:43  
SIZE 21  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:44  
SIZE 22  
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:45  
SIZE 22  
PRT: Kaposi's FGF signal sequence-full length

Met-Ser-Gly-Asp-Gly-Thr-Ala-Ala-Val-Ala-Leu-Leu-Pro-Ala-Val-Leu-Leu-Ala-Leu-Leu-Ala-Pro

SEQ ID NO:46  
SIZE 10769  
DNA: R011

```
TGCCCATTGC ATACGTTGTA TCCATATCAT AATATGTACA TTTATATTGG CTCATGTCCA
ACATTACCGC CATGTTGACA TTGATTATTG          90
ACTAGTTATT AATAGTAATC AATTACGGGG TCATTAGTTC ATAGCCCATA TATGGAGTTC
CGCGTTACAT AACTTACGGT AAATGGCCCG          180
CCTGGCTGAC CGCCCAACGA CCCCCGCCCA TTGACGTCAA TAATGACGTA TGTTCCCAT
GTAACGCCAA TAGGGACTTT CCATTGACGT          270
CAATGGGTGG AGTATTTACG GTAAACTGCC CACTTGGCAG TACATCAAGT GTATCATATG
CCAAGTACGC CCCCTATTGA CGTCAATGAC          360
GGTAAATGGC CCGCCTGGCA TTATGCCCAG TACATGACCT TATGGGACTT TCCTACTTGG
CAGTACATCT ACGTATTAGT CATCGCTATT          450
ACCATGGTGA TCGCGTTTTG GCAGTACATC AATGGGCGTG GATAGCGGTT TGA CTCACGG
GGATTTCCAA GTCTCCACCC CATTGACGTC          540
AATGGGAGTT TGTTTTGGCA CCAAATCAA CGGGACTTTC CAAAATGTCT TAACAACTCC
GCCCCATTGA CGCAAATGGG CGGTAGGCGT          630
GTACGGTGGG AGGTCTATAT AAGCAGAGCT CGTTTAGTGA ACCGTCAGAT CGCCTGGAGA
CGCCATCCAC GCTGTTTTGA CCTCCATAGA          720
AGACACCGGG ACCGATCCAG CCTCCGCGGC CGGGAACGGT GCATTGGAAC GCGGATTCCC
CGTGCCAAGA GTGACGTAAG TACCGCCTAT          810
AGACTCTATA GGCACACCCC TTTGGCTCTT ATGCATGCTA TACTGTTTTT GGCTTGGGGC
CTATACACCC CCGCTTCCTT ATGCTATAGG          900
TGATGGTATA GCTTAGCCTA TAGGTGTGGG TTATTGACCA TTATTGACCA CTCCAACGGT
GGAGGGCAGT GTAGTCTGAG CAGTACTCGT          990
TGCTGCCGCG CGCGCCACCA GACATAATAG CTGACAGACT AACAGACTGT TCCTTTCCAT
GGGTCTTTTC TGCAGTCACC GTCGTCGACG          1080
GTATCGATAA GCTTGATCCA CCGCGGTGGC GGCCTGGCAC GACAGGTTTC CCGACTGGAA
AGCGGGCAGT GAGCGCAACG CAATTAATGT          1170
GAGTTAGCTC ACTCATTAGG CACCCCAGGC TTTACACTTT ATGCTTCCGG CTCGTATGTT
GTGTGGAATT GTGAGCGGAT AACAATTTCA          1260
```

CACAGGAAAC AGCTATGACC ATGATTACGC CAAGCTCCAA CGATTTAGGT GACACTATAG  
AAGAGAAGGA ATTAATACGA CTCACTATAG 1350  
GGAGAGAGAG AGAATTACCC TCACTAAAGG GAGGAGAAGC TTGCATGCCT GCAGGTCGAC  
TCTAGAGGAT CCCCCGGGCT GCAGGAATTC 1440  
CGCNNNNCCCT CTCCCTCCCC CCCCCTAAC GTTACTGGCC GAAGCCGCTT GGAATAAGGC  
CGGTGTGCGT TTGTCTATAT GTTATTTTCC 1530  
ACCATATTGC CGTCTTTTGG CAATGTGAGG GCCCGGAAAC CTGGCCCTGT CTTCTTGACG  
AGCATTCTTA GGGGTCTTTC CCCTCTCGCC 1620  
AAAGGAATGC AAGGTCTGTT GAATGTCGTG AAGGAAGCAG TTCCTCTGGA AGCTTCTTGA  
AGACAAACAA CGTCTGTAGC GACCCTTTGC 1710  
AGGCAGCGGA ACCCCCCACC TGGCGACAGG TGCCTCTGCG GCCAAAAGCC ACGTGTATAA  
GATACACCTG CAAAGGCGGC ACAACCCAG 1800  
TGCCACGTTG TGAGTTGGAT AGTTGTGGAA AGAGTCAAAT GGCTCTCCTC AAGCGTATTC  
AACAAGGGGC TGAAGGATGC CCAGAAGGTA 1890  
CCCCATTGTA TGGGATCTGA TCTGGGGCCT CGGTGCACAT GCTTTACATG TGTTTAGTCG  
AGGTTAAAAA AACGTCTAGG CCCCCGAAC 1980  
CACGGGGACG TGGTTTTCTT TTGAAAAACA CGATGATAAT ATGGCCACAA CCATGGACAC  
GATTAACATC GCTAAGAACG ACTTCTCTGA 2070  
CATCGAACTG GCTGCTATCC CGTTCAACAC TCTGGCTGAC CATTACGGTG AGCGTTTAGC  
TCGCGAACAG TTGGCCCTTG AGCATGAGTC 2160  
TTACGAGATG GGTGAAGCAC GCTTCCGCAA GATGTTTGAG CGTCAACTTA AAGCTGGTGA  
GGTTGCGGAT AACGCTGCCG CCAAGCCTCT 2250  
CATCACTACC CTACTCCCTA AGATGATTGC ACGCATCAAC GACTGGTTTG AGGAAGTGAA  
AGCTAAGCGC GGCAAGCGCC CGACAGCCTT 2340  
CCAGTTCCTG CAAGAAATCA AGCCGGAAGC CGTAGCGTAC ATCACCATTA AGACCACTCT  
GGCTTGCCTA ACCAGTGCTG ACAATACAAC 2430  
CGTTCAGGCT GTAGCAAGCG CAATCGGTG GGCATTGAG GACGAGGCTC GCTTCGGTCG  
TATCCGTGAC CTTGAAGCTA AGCACTTCAA 2520  
GAAAAACGTT GAGGAACAAC TCAACAAGCG CGTAGGGCAC GTCTACAAGA AAGCATTTAT  
GCAAGTTGTC GAGGCTGACA TGCTCTCTAA 2610  
GGGTCTACTC GGTGGCGAGG CGTGGTCTTC GTGGCATAAG GAAGACTCTA TTCATGTAGG  
AGTACGCTGC ATCGAGATGC TCATTGAGTC 2700  
AACCGBAATG GTTAGCTTAC ACCGCCAAAA TGCTGGCGTA GTAGGTCAAG ACTCTGAGAC  
TATCGAACTC GCACCTGAAT ACGCTGAGGC 2790  
TATCGCAACC CGTGCAGGTG CGCTGGCTGG CATCTCTCCG ATGTTCCAAC CTTGCGTAGT  
TCCTCCTAAG CCGTGGACTG GCATTACTGG 2880  
TGGTGGCTAT TGGGCTAACG GTCGTCGTCC TCTGGCGCTG GTGCGTACTC ACAGTAAGAA  
AGCACTGATG CGCTACGAAG ACGTTTACAT 2970  
GCCTGAGGTG TACAAAGCGA TTAACATTGC GCAAAACACC GCATGGAAAA TCAACAAGAA  
AGTCCTAGCG GTCGCCAACG TAATCACCAA 3060

GTGGAAGCAT	TGTCCGGTCG	AGGACATCCC	TGCGATTGAG	CGTGAAGAAC	TCCCCGATGAA
ACCGGAAGAC	ATCGACATGA	ATCCTGAGGC	3150		
TCTCACCGCG	TGGAAACGTG	CTGCCGCTGC	TGTGTACCGC	AAGGACAAGG	CTCGCAAGTC
TCGCCGTATC	AGCCTTGAGT	TCATGCTTGA	3240		
GCAAGCCAAAT	AAGTTTGCTA	ACCATAAGGC	CATCTGGTTC	CCTTACAACA	TGGACTGGCG
CGGTCGTGTT	TACGCTGTGT	CAATGTTCAA	3330		
CCCCGAAGGT	AACGATATGA	CCAAAGGACT	GCTTACGCTG	GCGAAAGGTA	AACCAATCGG
TAAGGAAGGT	TACTACTGGC	TGAAAATCCA	3420		
CGGTGCAAAC	TGTGCGGGTG	TCGATAAGGT	TCCGTTCCCT	GAGCGCATCA	AGTTCATTGA
GGAAAACCAC	GAGAACATCA	TGGCTTGCGC	3510		
TAAGTCTCCA	CTGGAGAACA	CTTGGTGGGC	TGAGCAAGAT	TCTCCGTTCT	GCTTCCTTGC
GTTCTGCTTT	GAGTACGCTG	GGGTACAGCA	3600		
CCACGGCCTG	AGCTATAACT	GCTCCCTTCC	GCTGGCGTTT	GACGGGTCTT	GCTCTGGCAT
CCAGCACTTC	TCCGCGATGC	TCCGAGATGA	3690		
GGTAGGTGGT	CGCGCGGTTA	ACTTGCTTCC	TAGTGAAACC	GTTCAGGACA	TCTACGGGAT
TGTTGCTAAG	AAAGTCAACG	AGATTCTACA	3780		
AGCAGACGCA	ATCAATGGGA	CCGATAACGA	AGTAGTTACC	GTGACCGATG	AGAACACTGG
TGAAATCTCT	GAGAAAGTCA	AGCTGGGCAC	3870		
TAAGGCACTG	GCTGGTCAAT	GGCTGGCTTA	CGGTGTTACT	CGCAGTGTGA	CTAAGCGTTC
AGTCATGACG	CTGGCTTACG	GGTCCAAAGA	3960		
GTTCTGGCTTC	CGTCAACAAG	TGCTGGAAGA	TACCATTTCAG	CCAGCTATTG	ATTCCGGCAA
GGGTCTGATG	TTCACTCAGC	CGAATCAGGC	4050		
TGCTGGATAC	ATGGCTAAGC	TGATTTGGGA	ATCTGTGAGC	GTGACGGTGG	TAGCTGCGGT
TGAAGCAATG	AACTGGCTTA	AGTCTGCTGC	4140		
TAAGCTGCTG	GCTGCTGAGG	TCAAAGATAA	GAAGACTGGA	GAGATTCTTC	GCAAGCGTTG
CGCTGTGCAT	TGGGTAATCT	CTGATGGTTT	4230		
CCCTGTGTGG	CAGGAATACA	AGAAGCCTAT	TCAGACGCGC	TTGAACCTGA	TGTTCTCTCGG
TCAGTTCCGC	TTACAGCCTA	CCATTAACAC	4320		
CAACAAAGAT	AGCGAGATTG	ATGCACACAA	ACAGGAGTCT	GGTATCGCTC	CTAACTTTGT
ACACAGCCAA	GACGGTAGCC	ACCTTCGTAA	4410		
GACTGTAGTG	TGGGCACACG	AGAAGTACGG	AATCGAATCT	TTTGCACTGA	TTCACGACTC
CTTCGGTACC	ATTCCGGCTG	ACGCTGCGAA	4500		
CCTGTTCAAA	GCAGTGCGCG	AAACTATGGT	TGACACATAT	GAGTCTTG TG	ATGTACTGGC
TGATTTCTAC	GACCAGTTTCG	CTGACCAGTT	4590		
GCACGAGTCT	CAATTGGACA	AAATGCCAGC	ACTTCCGGCT	AAAGGTA ACT	TGAACCTCCG
TGACATCTTA	GAGTCGGACT	TCGCGTTTCGC	4680		
GTAACGCCAA	ATCAATACGA	CTCCGGATCT	GAAC TTGTTT	ATTGCAGCTT	ATAATGGTTA
CAAATAAAGC	AATAGCATCA	CAAATTTTAC	4770		
AAATAAAGCA	TTTTTTTTCAC	TGCATTCTAG	TTGTGGTTTG	TCCAAACTCA	TCAATGTATC
TTATCATGTC	TGGATCTGGT	TACCACTAAA	4860		



CCAGCCTCAA	GAACACCCGA	ATGGAGTCTC	TAAGCTACAT	AATACCAACT	TACACTTTAC
AAAATGTTGT	CCCCCAAAT	GTAGCCATTC	4950		
GTATCTGCTC	CTAATAAAAA	GAAAGTTTCT	TCACATTCTA	AAAAAAAAAA	AAAAAAAAAA
AAAAAAAAAA	AACCCCCCCC	CCCCCCCCCT	5040		
GCAGGAATTC	GATCTGGCAC	GACAGGTTTC	CCGACTGGAA	AGCGGGCAGT	GAGCGCAACG
CAATTAATGT	GAGTTAGCTC	ACTCATTAGG	5130		
CACCCCAGGC	TTTACACTTT	ATGCTTCCGG	CTCGTATGTT	GTGTGGAATT	GTGAGCGGAT
AACAATTTCA	CACAGGAAAC	AGCTATGACC	5220		
ATGATTACGC	CAAGCTCCAA	CGATTTAGGT	GACACTATAG	AAGAGAAGGA	ATTAATACGA
CTCACTATAG	GGAGAGAGAG	AGAATTACCC	5310		
TCACTAAAGG	GAGGAGAAGC	TTGCATGCCT	GCAGGTCGAT	CGAGCATGCA	TCTAGGGCGG
CCAATTCGCC	CCTCTCCCTC	CCCCCCCCCT	5400		
AACGTTACTG	GCCGAAGCCG	CTTGGAATAA	GGCCGGTGTG	TGTTTGTCTA	TATGTGATTT
TCCACCATAT	TGCCGTCTTT	TGGCAATGTG	5490		
AGGGCCCCGA	AACCTGGCCC	TGTCTTCTTG	ACGAGCATTC	CTAGGGGTCT	TTCCCTCTC
GCCAAAGGAA	TGCAAGGTCT	GTTGAATGTC	5580		
GTGAAGGAAG	CAGTTCCTCT	GGAAGCTTCT	TGAAGACAAA	CAACGTCTGT	AGCGACCCTT
TGCAGGCAGC	GGAACCCCCC	ACCTGGCGAC	5670		
AGGTGCCTCT	GCGGCCAAAA	GCCACGTGTA	TAAGATACAC	CTGCAAAGGC	GGCACAACCC
CAGTGCCACG	TTGTGAGTTG	GATAGTTGTG	5760		
GAAAGAGTCA	AATGGCTCTC	CTCAAGCGTA	TTCAACAAGG	GGCTGAAGGA	TGCCCAGAAG
GTACCCCAT	GTATGGGATC	TGATCTGGGG	5850		
CCTCGGTGCA	CATGCTTTAC	ATGTGTTTAG	TCGAGGTTAA	AAAACGTCTA	GGCCCCCGGA
ACCACGGGGA	CGTGGTTTTT	CTTTGAAAAA	5940		
CACGATGATA	ATATGGCCAC	AACCATGGAA	GACGCCAAAA	ACATAAAGAA	AGGCCCCGGC
CCATTCTATC	CGCTGGAAGA	TGGAACCGCT	6030		
GGAGAGCAAC	TGCATAAGGC	TATGAAGAGA	TACGCCCTGG	TTCCTGGAAC	AATTGCTTTT
ACAGATGCAC	ATATCGAGGT	GGACATCACT	6120		
TACGCTGAGT	ACTTCGAAAT	GTCCGTTCGG	TTGGCAGAAG	CTATGAAACG	ATATGGGCTG
AATACAAATC	ACAGAATCGT	CGTATGCAGT	6210		
GAAACTCTC	TTCAATTCTT	TATGCCGGTG	TTGGGCGCGT	TATTTATCGG	AGTTGCAGTT
GCGCCCGCGA	ACGACATTTA	TAATGAACGT	6300		
GAATTGCTCA	ACAGTATGGG	CATTTCGCAG	CCTACCGTGG	TGTTTCGTTT	CAAAAAGGGG
TTGCAAAAAA	TTTTGAACGT	GCAAAAAAAG	6390		
CTCCCAATCA	TCCAAAAAAT	TATTATCATG	GATTCTAAAA	CGGATTACCA	GGGATTTTCAG
TCGATGTACA	CGTTCGTCAC	ATCTCATCTA	6480		
CCTCCCGGTT	TTAATGAATA	CGATTTTGTG	CCAGAGTCCT	TCGATAGGGA	CAAGACAATT
GCACTGATCA	TGAACTCCTC	TGGATCTACT	6570		
GGTCTGCCTA	AAGGTGTCGC	TCTGCCTCAT	AGAAGTGCCT	GCGTGAGATT	CTCGCATGCC
AGAGATCCTA	TTTTTGGCAA	TCAAATCATT	6660		

CCGGATACTG	CGATTTTAAG	TGTTGTTCCA	TTCCATCACG	GTTTTGGAAT	GTTTACTACA
CTCGGATATT	TGATATGTGG	ATTTTCGAGTC	6750		
GTCTTAATGT	ATAGATTTGA	AGAAGAGCTG	TTTTTACGAT	CCCTTCAGGA	TTACAAAATT
CAAAGTGCCT	TGCTAGTACC	AACCCTATTT	6840		
TCATTCTTCG	CCAAAAGCAC	TCTGATTGAC	AAATACGATT	TATCTAATTT	ACACGAAATT
GCTTCTGGGG	GCGCACCTCT	TTCGAAAGAA	6930		
GTCGGGGAAG	CGGTTGCAAA	ACGCTTCCAT	CTTCCAGGGA	TACGACAAGG	ATATGGGCTC
ACTGAGACTA	CATCAGCTAT	TCTGATTACA	7020		
CCCCAGGGGG	ATGATAAACC	GGGCGCGGTC	GGTAAAGTTG	TTCCATTTTT	TGAAGCGAAG
GTTGTGGATC	TGGATACCGG	GAAAACGCTG	7110		
GGCGTTAATC	AGAGAGGCGA	ATTATGTGTC	AGAGGACCTA	TGATTATGTC	CGGTTATGTA
AACAATCCGG	AAGCGACCAA	CGCCTTGATT	7200		
GACAAGGATG	GATGGCTACA	TTCTGGAGAC	ATAGCTTACT	GGGACGAAGA	CGAACACTTC
TTCATAGTTG	ACCGCTTGAA	GTCTTTAATT	7290		
AAATACAAAAG	GATATCAGGT	GGCCCCCGCT	GAATTGGAAT	CGATATTGTT	ACAACACCCC
AACATCTTCG	ACGCGGGCGT	GGCAGGTCTT	7380		
CCCACGATG	ACGCCGGTGA	ACTTCCCGCC	GCCGTTGTTG	TTTTGGAGCA	CGGAAAGACG
ATGACGGAAA	AAGAGATCGT	GGATTACGTC	7470		
GCCAGTCAAG	TAACAACCGC	GAAAAAGTTG	CGCGGAGGAG	TTGTGTTTGT	GGACGAAGTA
CCGAAAGGTC	TTACCGGAAA	ACTCGACGCA	7560		
AGAAAAATCA	GAGAGATCCT	CATAAAGGCC	AAGAAGGGCG	GAAAGTCCAA	ATTGTAAAAT
GTAAGTGTAT	TCAGCGATGA	CGAAATTCTT	7650		
AGCTATTGTA	ATACTCTAGA	GGATCTGGTT	ACCACTAAAC	CAGCCTCAAG	AACACCCGAA
TGGAGTCTCT	AAGCTACATA	ATACCAACTT	7740		
ACACTTTACA	AAATGTTGTC	CCCCAAAATG	TAGCCATTCG	TATCTGCTCC	TAATAAAAAG
AAAGTTTCTT	CACATTCTAA	AAAAAAAAAA	7830		
AAAAAAAAAA	ACCCCCCCCC	CCCCCCCCCC	CCCCCCCCCC	CTGCAGGTCTG	ACTCTAGAGG
ATCTTTTTCC	CTCGCCAAAA	ATTATGGGGA	7920		
CATCATGAAG	CCCCTTGAGC	ATCTGACTTC	TGGCTAATAA	AGGAAATTTA	TTTCATTGCA
ATAGTGTGTT	GGAATTTTTT	GTGTCTCTCA	8010		
CTCGGAAGGA	CATATGGGAG	GGCAAATCAT	TTAAAACATC	AGAATCAGTA	TTTGGTTTAG
AGTTTGGCAA	CATATGCCAT	TCTTCCGCTT	8100		
CCTCGCTCAC	TGACTCGCTG	CGCTCGGTCTG	TTCGGCTGCG	GCGAGCGGTA	TCAGCTCACT
CAAAGGCGGT	AATACGGTTA	TCCACAGAAT	8190		
CAGGGGATAA	CGCAGGAAAG	AACATGTGAG	CAAAAGGCCA	GCAAAAGGCC	AGGAACCGTA
AAAAGGCCGC	GTTGCTGGCG	TTTTTCCATA	8280		
GGCTCCGCCC	CCCTGACGAG	CATCACAAAA	ATCGACGCTC	AAGTCAGAGG	TGGCGAAACC
CGACAGGACT	ATAAAGATAC	CAGGCGTTTC	8370		
CCCCTGGAAG	CTCCCTCGTG	CGCTCTCCTG	TTCCGACCCCT	GCCGCTTACC	GGATACCTGT
CCGCCTTTCT	CCCTTCGGGA	AGCGTGGCGC	8460		

TTTCTCAATG	CTCACGCTGT	AGGTATCTCA	GTTCTGGTGTA	GGTCGTTCGC	TCCAAGCTGG
GCTGTGTGCA	CGAACCCCCC	GTTCAGCCCCG	8550		
ACCGCTGCGC	CTTATCCGGT	AACTATCGTC	TTGAGTCCAA	CCCGGTAAGA	CACGACTTAT
CGCCACTGGC	AGCAGCCACT	GGTAACAGGA	8640		
TTAGCAGAGC	GAGGTATGTA	GGCGGTGCTA	CAGAGTTCTT	GAAGTGGTGG	CCTAACTACG
GCTACACTAG	AAGGACAGTA	TTTGGTATCT	8730		
GCGCTCTGCT	GAAGCCAGTT	ACCTTCGGAA	AAAGAGTTGG	TAGCTCTTGA	TCCGGCAAAC
AAACCACCGC	TGGTAGCGGT	GGTTTTTTTTG	8820		
TTTGCAAGCA	GCAGATTACG	CGCAGAAAAA	AAGGATCTCA	AGAAGATCCT	TTGATCTTTT
CTACGGGGTC	TGACGCTCAG	TGGAACGAAA	8910		
ACTCACGTTA	AGGGATTTTG	GTCATGAGAT	TATCAAAAAG	GATCTTCACC	TAGATCCTTT
TAAATTAAAA	ATGAAGTTTT	AAATCAATCT	9000		
AAAGTATATA	TGAGTAAACT	TGGTCTGACA	GTTACCAATG	CTTAATCAGT	GAGGCACCTA
TCTCAGCGAT	CTGTCTATTT	CGTTCATCCA	9090		
TAGTTGCCTG	ACTCCGGGGG	GGGGGGGCGC	TGAGGTCTGC	CTCGTGAAGA	AGGTGTTGCT
GACTCATACC	AGGCTTGAAT	CGCCCCATCA	9180		
TCCAGCCAGA	AAGTGAGGGA	GCCACGGTTG	ATGAGAGCTT	TGTTGTAGGT	GGACCAGTTG
GTGATTTTGA	ACTTTTGCTT	TGCCACGGAA	9270		
CGGTCTGCGT	TGTCGGGAAG	ATGCGTGATC	TGATCCTTCA	ACTCAGCAAA	AGTTCGATTT
ATTCAACAAA	GCCGCCGTCC	CGTCAAGTCA	9360		
GCGTAATGCT	CTGCCAGTGT	TACAACCAAT	TAACCAATTC	TGATTAGAAA	AACTCATCGA
GCATCAAATG	AAACTGCAAT	TTATTCATAT	9450		
CAGGATTATC	AATACCATAT	TTTTGAAAAA	GCCGTTTCTG	TAATGAAGGA	GAAAACTCAC
CGAGGCAGTT	CCATAGGATG	GCAAGATCCT	9540		
GGTATCGGTC	TGCGATTCCG	ACTCGTCCAA	CATCAATACA	ACCTATTAAT	TTCCCCTCGT
CAAAAATAAG	GTTATCAAGT	GAGAAATCAC	9630		
CATGAGTGAC	GA CTGAATCC	GGTGAGAATG	GCAAAAGCTT	ATGCATTTCT	TTCCAGACTT
GTTCAACAGG	CCAGCCATTA	CGCTCGTCAT	9720		
CAAAATCACT	CGCATCAACC	AAACCGTTAT	TCATTTCGTGA	TTGCGCCTGA	GCGAGACGAA
ATACGCGATC	GCTGTTAAAA	GGACAATTAC	9810		
AAACAGGAAT	CGAATGCAAC	CGGCGCAGGA	ACACTGCCAG	CGCATCAACA	ATATTTTCAC
CTGAATCAGG	ATATTCTTCT	AATACCTGGA	9900		
ATGCTGTTTT	CCCGGGGATC	GCAGTGGTGA	GTAACCATGC	ATCATCAGGA	GTACGGATAA
AATGCTTGAT	GGTCGGAAGA	GGCATAAATT	9990		
CCGTCAGCCA	GTTTAGTCTG	ACCATCTCAT	CTGTAACATC	ATTGGCAACG	CTACCTTTGC
CATGTTTCAG	AAACAAC TCT	GGCGCATCGG	10080		
GCTTCCCATA	CAATCGATAG	ATTGTGCGAC	CTGATTGCCC	GACATTATCG	CGAGCCCATT
TATACCCATA	TAAATCAGCA	TCCATGTTGG	10170		
AATTTAATCG	CGGCCTCGAG	CAAGACGTTT	CCC GTTGAAT	ATGGCTCATA	ACACCCCTTG
TATTACTGTT	TATGTAAGCA	GACAGTTTTA	10260		

TTGTTTCATGA TGATATATTT TTATCTTGTG CAATGTAACA TCAGAGATTT TGAGACACAA  
 CGTGGCTTTC CCCCCCCCCC CATTATTGAA 10350  
 GCATTTATCA GGGTTATTGT CTCATGAGCG GATACATATT TGAATGTATT TAGAAAAATA  
 AACAAATAGG GGTTCGCGC ACATTTCCCC 10440  
 GAAAAGTGCC ACCTGACGTC TAAGAAACCA TTATTATCAT GACATTAACC TATAAAAATA  
 GGCGTATCAC GAGGCCCTTT CGTCCTCGCG 10530  
 CGTTTCGGTG ATGACGGTGA AAACCTCTGA CACATGCAGC TCCCGGAGAC GGTCACAGCT  
 TGTCTGTAAG CGGATGCCGG GAGCAGACAA 10620  
 GCCCGTCAGG GCGCGTCAGC GGGTGTGGC GGGTGTGGG GCTGGCTTAA CTATGCGGCA  
 TCAGAGCAGA TTGTACTGAG AGTGCACCAT 10710  
 ATGCGGTGTG AAATACCGCA CAGATGCGTA AGGAGAAAAT ACCGCATCAG ATTGGCTAT  
 10769

SEQ ID NO:47  
 SIZE 5742  
 DNA: LO53

TGGCCATTGC ATACGTTGTA TCCATATCAT AATATGTACA TTTATATTGG CTCATGTCCA  
 ACATTACCGC CATGTTGACA TTGATTATTG 90  
 ACTAGTTATT AATAGTAATC AATTACGGGG TCATTAGTTC ATAGCCCATA TATGGAGTTC  
 CGCGTTACAT AACTTACGGT AAATGGCCCC 180  
 CCTGGCTGAC CGCCCAACGA CCCCCGCCCA TTGACGTCAA TAATGACGTA TGTTCCCAT  
 GTAACGCCAA TAGGGACTTT CCATTGACGT 270  
 CAATGGGTGG AGTATTTACG GTAAACTGCC CACTTGGCAG TACATCAAGT GTATCATATG  
 CCAAGTACGC CCCCTATTGA CGTCAATGAC 360  
 GGTAAATGGC CCGCCTGGCA TTATGCCCAG TACATGACCT TATGGGACTT TCCTACTTGG  
 CAGTACATCT ACGTATTAGT CATCGCTATT 450  
 ACCATGGTGA TGCGGTTTTG GCAGTACATC AATGGGCGTG GATAGCGGTT TGAATCACGG  
 GGATTTCCAA GTCTCCACCC CATTGACGTC 540  
 AATGGGAGTT TGTTTTGGCA CCAAATCAA CGGGACTTTC CAAATGTCTG TAACAACTCC  
 GCCCCATTGA CGCAAATGGG CGGTAGGCGT 630  
 GTACGGTGGG AGGTCTATAT AAGCAGAGCT CGTTTAGTGA ACCGTCAGAT CGCCTGGAGA  
 CGCCATCCAC GCTGTTTTGA CCTCCATAGA 720  
 AGACACCGGG ACCGATCCAG CCTCCGCGGC CGGGAACGGT GCATTGGAAC GCGGATTCCC  
 CGTGCCAAGA GTGACGTAAG TACCGCCTAT 810  
 AGACTCTATA GGCACACCCC TTTGGCTCTT ATGCATGCTA TACTGTTTTT GGCTTGGGGC  
 CTATACACCC CCGCTTCCTT ATGCTATAGG 900  
 TGATGGTATA GCTTAGCCTA TAGGTGTGGG TTATTGACCA TTATTGACCA CTCCAACGGT  
 GGAGGGCAGT GTAGTCTGAG CAGTACTCGT 990  
 TGCTGCCGCG CGCGCCACCA GACATAATAG CTGACAGACT AACAGACTGT TCCTTTCCAT  
 GGGTCTTTTC TGCAGTCACC GTCGTCGACA 1080  
 CGTGTGATCA GATGATCCTC TAGACCAGGC GCCTGGATCC GCTAGCAGGC CTAAGCTTGA  
 TAGCTTGGCA TTCCGGTACT GTTGGTAAAG 1170

CCACCATGGA	AGACGCCAAA	AACATAAAGA	AAGGCCCGGC	GCCATTCTAT	CCGCTGGAAG
ATGGAACCGC	TGGAGAGCAA	CTGCATAAGG	1260		
CTATGAAGAG	ATACGCCCTG	GTTCCCTGGA	CAATTGCTTT	TACAGATGCA	CATATCGAGG
TGGACATCAC	TTACGCTGAG	TACTTCGAAA	1350		
TGTCCGTTTC	GTTGGCAGAA	GCTATGAAAC	GATATGGGCT	GAATACAAAT	CACAGAATCG
TCGTATGCAG	TGAAAACTCT	CTTCAATTCT	1440		
TTATGCCGGT	GTTGGGCGCG	TTATTTATCG	GAGTTGCAGT	TGCGCCCGCG	AACGACATTT
ATAATGAACG	TGAATTGCTC	AACAGTATGG	1530		
GCATTTTCGCA	GCCTACCGTG	GTGTTTCGTTT	CCAAAAAGGG	GTTGCAAAAA	ATTTTGAACG
TGCAAAAAAA	GCTCCCAATC	ATCCAAAAAA	1620		
TTATTATCAT	GGATTCTAAA	ACGGATTACC	AGGGATTTC	GTCGATGTAC	ACGTTTCGTCA
CATCTCATCT	ACCTCCCGGT	TTTAATGAAT	1710		
ACGATTTTGT	GCCAGAGTCC	TTCGATAGGG	ACAAGACAAT	TGCACTGATC	ATGAACTCCT
CTGGATCTAC	TGGTCTGCCT	AAAGGTGTCG	1800		
CTCTGCCTCA	TAGAACTGCC	TGCGTGAGAT	TCTCGCATGC	CAGAGATCCT	ATTTTTGGCA
ATCAAATCAT	TCCGGATACT	GCGATTTTAA	1890		
GTGTTGTTCC	ATTCCATCAC	GGTTTTGGAA	TGTTTACTAC	ACTCGGATAT	TTGATATGTG
GATTTTCGAGT	CGTCTTAATG	TATAGATTTG	1980		
AAGAAGAGCT	GTTTCTGAGG	AGCCTTCAGG	ATTACAAGAT	TCAAAGTGCG	CTGCTGGTGC
CAACCCTATT	CTCCTTCTTC	GCCAAAAGCA	2070		
CTCTGATTGA	CAAATACGAT	TTATCTAATT	TACACGAAAT	TGCTTCTGGT	GGCGCTCCCC
TCTCTAAGGA	AGTCGGGGAA	GCGGTTGCCA	2160		
AGAGGTTC	TCTGCCAGGT	ATCAGGCAAG	GATATGGGCT	CACTGAGACT	ACATCAGCTA
TTCTGATTAC	ACCCGAGGGG	GATGATAAAC	2250		
CGGGCGCGGT	CGGTAAAGTT	GTTCCATTTT	TTGAAGCGAA	GGTTGTGGAT	CTGGATACCG
GGAAAACGCT	GGGCGTTAAT	CAAAGAGGCG	2340		
AACTGTGTGT	GAGAGGTCCT	ATGATTATGT	CCGTTTATGT	AAACAATCCG	GAAGCGACCA
ACGCCTTGAT	TGACAAGGAT	GGATGGCTAC	2430		
ATTCTGGAGA	CATAGCTTAC	TGGGACGAAG	ACGAACACTT	CTTCATCGTT	GACCGCCTGA
AGTCTCTGAT	TAAGTACAAA	GGCTATCAGG	2520		
TGGCTCCCGC	TGAATTGGAA	TCCATCTTGC	TCCAACACCC	CAACATCTTC	GACGCAGGTG
TCGCAGGTCT	TCCCGACGAT	GACGCCGGTG	2610		
AACTTCCCGC	CGCCGTTGTT	GTTTTGGAGC	ACGGAAAAGAC	GATGACGGAA	AAAGAGATCG
TGGATTACGT	CGCCAGTCAA	GTAACAACCG	2700		
CGAAAAAGTT	GCGCGGAGGA	GTTGTGTTTG	TGGACGAAGT	ACCGAAAGGT	CTTACCGGAA
AACTCGACGC	AAGAAAAATC	AGAGAGATCC	2790		
TCATAAAGGC	CAAGAAGGGC	GGAAAGATCG	CCGTGTAATT	CTAGATCGAA	TTCCTGCAGC
CCGGGGGATC	CAGATCTTTT	TCCCTCGCCA	2880		
AAAATTATGG	GGACATCATG	AAGCCCCTTG	AGCATCTGAC	TTCTGGCTAA	TAAAGGAAAT
TTATTTTCATT	GCAATAGTGT	GTTGGAATTT	2970		

TTTGTGTCTC	TCACTCGGAA	GGACATATGG	GAGGGCAAAT	CATTTAAAAC	ATCAGAATCA
GTATTTGGTT	TAGAGTTTGG	CAACATATGC	3060		
CATTCTTCCG	CTTCCTCGCT	CACTGACTCG	CTGCGCTCGG	TCGTTCCGGCT	GCGGCGAGCG
GTATCAGCTC	ACTCAAAGGC	GGTAATACGG	3150		
TTATCCACAG	AATCAGGGGA	TAACGCAGGA	AAGAACATGT	GAGCAAAAGG	CCAGCAAAAG
GCCAGGAACC	GTAAAAAGGC	CGCGTTGCTG	3240		
GCGTTTTTCC	ATAGGCTCCG	CCCCCTGAC	GAGCATCACA	AAAATCGACG	CTCAAGTCAG
AGGTGGCGAA	ACCCGACAGG	ACTATAAAGA	3330		
TACCAGGCGT	TTCCCCCTGG	AAGCTCCCTC	GTGCGCTCTC	CTGTTCCGAC	CCTGCCGCTT
ACCGGATACC	TGTCCGCCTT	TCTCCCTTCG	3420		
GGAAGCGTGG	CGCTTTCTCA	ATGCTCACGC	TGTAGGTATC	TCAGTTCGGT	GTAGGTCGTT
CGCTCCAAGC	TGGGCTGTGT	GCACGAACCC	3510		
CCCGTTTACG	CCGACCGCTG	CGCCTTATCC	GGTAACTATC	GTCTTGAGTC	CAACCCGGTA
AGACACGACT	TATCGCCACT	GGCAGCAGCC	3600		
ACTGGTAACA	GGATTAGCAG	AGCGAGGTAT	GTAGGCGGTG	CTACAGAGTT	CTTGAAGTGG
TGGCCTAACT	ACGGCTACAC	TAGAAGGACA	3690		
GTATTTGGTA	TCTGCGCTCT	GCTGAAGCCA	GTTACCTTCG	GAAAAAGAGT	TGGTAGCTCT
TGATCCGGCA	AACAAACCAC	CGCTGGTAGC	3780		
GGTGGTTTTT	TTGTTTGCAA	GCAGCAGATT	ACGCGCAGAA	AAAAAGGATC	TCAAGAAGAT
CCTTTGATCT	TTTCTACGGG	GTCTGACGCT	3870		
CAGTGGAACG	AAAACTCACG	TTAAGGGATT	TTGGTCATGA	GATTATCAAA	AAGGATCTTC
ACCTAGATCC	TTTTAAATTA	AAAATGAAGT	3960		
TTTAAATCAA	TCTAAAGTAT	ATATGAGTAA	ACTTGGTCTG	ACAGTTACCA	ATGCTTAATC
AGTGAGGCAC	CTATCTCAGC	GATCTGTCTA	4050		
TTTCGTTTAT	CCATAGTTGC	CTGACTCCGG	GGGGGGGGGG	CGCTGAGGTC	TGCCTCGTGA
AGAAGGTGTT	GCTGACTCAT	ACCAGGCCTG	4140		
AATCGCCCCA	TCATCCAGCC	AGAAAGTGAG	GGAGCCACGG	TTGATGAGAG	CTTTGTTGTA
GGTGGACCAG	TTGGTGATTT	TGAACTTTTG	4230		
CTTTGCCACG	GAACGGTCTG	CGTTGTCGGG	AAGATGCGTG	ATCTGATCCT	TCAACTCAGC
AAAAGTTCGA	TTTATTCAAC	AAAGCCGCCG	4320		
TCCCGTCAAG	TCAGCGTAAT	GCTCTGCCAG	TGTTACAACC	AATTAACCAA	TTCTGATTAG
AAAAACTCAT	CGAGCATCAA	ATGAAACTGC	4410		
AATTTATTCA	TATCAGGATT	ATCAATACCA	TATTTTTGAA	AAAGCCGTTT	CTGTAATGAA
GGAGAAAAC	CACCGAGGCA	GTTCCATAGG	4500		
ATGGCAAGAT	CCTGGTATCG	GTCTGCGATT	CCGACTCGTC	CAACATCAAT	ACAACCTATT
AATTTCCCCT	CGTCAAAAAT	AAGGTTATCA	4590		
AGTGAGAAAT	CACCATGAGT	GACGACTGAA	TCCGGTGAGA	ATGGCAAAAG	CTTATGCATT
TCTTTCCAGA	CTTGTTCAAC	AGGCCAGCCA	4680		
TTACGCTCGT	CATCAAAATC	ACTCGCATCA	ACCAAACCGT	TATTCATTCT	TGATTGCGCC
TGAGCGAGAC	GAAATACGCG	ATCGCTGTTA	4770		

AAAGGACAAT	TACAAACAGG	AATCGAATGC	AACCGGCGCA	GGAACACTGC	CAGCGCATCA
ACAATATTTT	CACCTGAATC	AGGATATTCT	4860		
TCTAATACCT	GGAATGCTGT	TTTCCCGGGG	ATCGCAGTGG	TGAGTAACCA	TGCATCATCA
GGAGTACGGA	TAAAATGCTT	GATGGTCGGA	4950		
AGAGGCATAA	ATTCCGTCAG	CCAGTTTAGT	CTGACCATCT	CATCTGTAAC	ATCATTGGCA
ACGCTACCTT	TGCCATGTTT	CAGAAACAAC	5040		
TCTGGCGCAT	CGGGCTTCCC	ATACAATCGA	TAGATTGTCT	CACCTGATTG	CCCGACATTA
TCGCGAGCCC	ATTTATACCC	ATATAAATCA	5130		
GCATCCATGT	TGGAATTTAA	TCGCGGCCTC	GAGCAAGACG	TTTCCCGTTG	AATATGGCTC
ATAACACCCC	TTGTATTACT	GTTTATGTAA	5220		
GCAGACAGTT	TTATTGTTCA	TGATGATATA	TTTTTATCTT	GTGCAATGTA	ACATCAGAGA
TTTTGAGACA	CAACGTGGCT	TTCCCCCCCC	5310		
CCCCATTATT	GAAGCATTTA	TCAGGGTTAT	TGTCTCATGA	GCGGATACAT	ATTTGAATGT
ATTTAGAAAA	ATAAACAAAT	AGGGGTTCG	5400		
CGCACATTTT	CCCGAAAAGT	GCCACCTGAC	GTCTAAGAAA	CCATTATTAT	CATGACATTA
ACCTATAAAA	ATAGGCGTAT	CACGAGGCCC	5490		
TTTCGTCCTC	GCGCGTTTCG	GTGATGACGG	TGAAAACCTC	TGACACATGC	AGCTCCCGGA
GACGGTCACA	GCTTGTCTGT	AAGCGGATGC	5580		
CGGGAGCAGA	CAAGCCCCTC	AGGGCGCGTC	AGCGGGTGTT	GGCGGGTGTC	GGGGCTGGCT
TAAGTATGCG	GCATCAGAGC	AGATTGTACT	5670		
GAGAGTGCAC	CATATGCGGT	GTGAAATACC	GCACAGATGC	GTAAGGAGAA	AATACCGCAT
CAGATTGGCT	AT		5742		

SEQ ID NO:48  
 SIZE 5313  
 DNA: LO59

TCGCGCGTTT	CGGTGATGAC	GGTGAAAACC	TCTGACACAT	GCAGCTCCCG	GAGACGGTCA
CAGCTTGCTT	GTAAGCGGAT	GCCGGGAGCA	90		
GACAAGCCCC	TCAGGGCGCG	TCAGCGGGTG	TTGGCGGGTG	TCGGGGCTGG	CTTAAGTATG
CGGCATCAGA	GCAGATTGTA	CTGAGAGTGC	180		
ACCATATGCG	GTGTGAAATA	CCGCACAGAT	GCGTAAGGAG	AAAATACCGC	ATCAGGCGCC
ATTCGCCATT	CAGGCTGCGC	AACTGTTGGG	270		
AAGGGCGATC	GGTGCGGGCC	TCTTCGCTAT	TACGCCAGCT	GGCGAAAGGG	GGATGTGCTG
CAAGGCGATT	AAGTTGGGTA	ACGCCAGGGT	360		
TTTCCCAGTC	ACGACGTTGT	AAAACGACGG	CCAGTGAATT	CGAGCTCGGT	ACCCGGGGAT
CCTCTAGAGT	CGACCTGCAG	GGGGGGGGGG	450		
GGGGGGGGGG	GGGGGGGGGT	TTTTTTTTTT	TTTTTTTTTT	TTAGAATGTG	AAGAACTTTT
CTTTTTATTA	GGAGCAGATA	CGAATGGCTA	540		
CATTTTGGGG	GACAACATTT	TGTAAAGTGT	AAGTTGGTAT	TATGTAGCTT	AGAGACTCCA
TTGCGGTGTT	CTTGAGGCTG	GTTTAGTGGT	630		
AACCAGATCC	TCTAGAGTAT	TACAATAGCT	AAGAATTTCT	TCATCGCTGA	ATACAGTTAC
ATTTTACAAT	TTGGACTTTC	CGCCCTTCTT	720		

GGCCTTTATG AGGATCTCTC TGATTTTCT TGCCTCGAGT TTTCCGGTAA GACCTTTCGG  
TACTTCGTCC ACAAACACAA CTCCTCCGCG 810  
CAACTTTTTC GCGGTTGTTA CTTGACTGGC GACGTAATCC ACGATCTCTT TTTCCGTCAT  
CGTCTTTCCG TGCTCCAAAA CAACAACGGC 900  
GGCGGGAAGT TCACCGGCGT CATCGTCGGG AAGACCTGCC ACGCCCGCGT CGAAGATGTT  
GGGGTGTTGT AACAAATATCG ATTCCAATTC 990  
AGCGGGGGCC ACCTGATATC CTTTGTATTT AATTAAAGAC TTCAAGCGGT CAACTATGAA  
GAAGTGTTCTG TCTTCGTCCC AGTAAGCTAT 1080  
GTCTCCAGAA TGTAGCCATC CATCCTTGTC AATCAAGGCG TTGGTCGCTT CCGGATTGTT  
TACATAACCG GACATAATCA TAGGTCCTCT 1170  
GACACATAAT TCGCCTCTCT GATTAACGCC CAGCGTTTTT CCGGTATCCA GATCCACAAC  
CTTCGCTTCA AAAAATGGAA CAACTTTACC 1260  
GACCGCGCCC GGTTTATCAT CCCCTCGGG TGTAATCAGA ATAGCTGATG TAGTCTCAGT  
GAGCCCATAT CCTTGTCTGA TCCCTGGAAG 1350  
ATGGAAGCGT TTTGCAACCG CTTCCCCGAC TTCTTTCGAA AGAGGTGCGC CCCCAGAAGC  
AATTTCTGTG AAATTAGATA AATCGTATTT 1440  
GTCAATCAGA GTGCTTTTGG CGAAGAATGA AAATAGGGTT GGTACTAGCA ACGCACTTTG  
AATTTTGTA TCCTGAAGGG ATCGTAAAAA 1530  
CAGCTCTTCT TCAAATCTAT ACATTAAGAC GACTCGAAAT CCACATATCA AATATCCGAG  
TGTAATAAAC ATTCCAAAAC CGTGATGGAA 1620  
TGGAACAACA CTTAAAATCG CAGTATCCGG AATGATTGTA TTGCCAAAA TAGGATCTCT  
GGCATGCGAG AATCTCACGC AGGCAGTTCT 1710  
ATGAGGCAGA GCGACACCTT TAGGCAGACC AGTAGATCCA GAGGAGTTCA TGATCAGTGC  
AATTGTCTTG TCCCTATCGA AGGACTCTGG 1800  
CACAAAATCG TATTCATTAA AACCGGGAGG TAGATGAGAT GTGACGAACG TGTACATCGA  
CTGAAATCCC TGGTAATCCG TTTTAGAATC 1890  
CATGATAATA ATTTTTTGGA TGATTGGGAG CTTTTTTTGC ACGTTCAAAA TTTTTTGCAA  
CCCCTTTTTG GAAACGAACA CCACGGTAGG 1980  
CTGCGAAATG CCCATACTGT TGAGCAATTC ACGTTCATTA TAAATGTCGT TCGCGGGCGC  
AACTGCAACT CCGATAAATA ACGCGCCCAA 2070  
CACCGGCATA AAGAATTGAA GAGAGTTTTT ACTGCATACG ACGATTCTGT GATTTGTATT  
CAGCCCATAT CGTTTCATAG CTTCTGCCAA 2160  
CCGAACGGAC ATTTCGAAGT ACTCAGCGTA AGTGATGTCC ACCTCGATAT GTGCATCTGT  
AAAAGCAATT GTTCCAGGAA CCAGGGCGTA 2250  
TCTCTTCATA GCCTTATGCA GTTGCTCTCC AGCGGTTCCA TCTTCCAGCG GATAGAATGG  
CGCCGGGCCT TTCTTTATGT TTTTGGCGTC 2340  
TTCCATGGTT GTGGCCATAT TATCATCGTG TTTTCAAAG GAAAACCACG TCCCCGTGGT  
TCGGGGGGCC TAGACGTTTT TTAACCTCGA 2430  
CTAAACACAT GTAAAGCATG TGCACCGAGG CCCCAGATCA GATCCCATAC AATGGGGTAC  
CTTCTGGGCA TCCTTCAGCC CCTTGTTGAA 2520



TACGCTTGAG	GAGAGCCATT	TGACTCTTTC	CACAACTATC	CAACTCACAA	CGTGGCACTG
GGGTTGTGCC	GCCTTTGCAG	GTGTATCTTA	2610		
TACACGTGGC	TTTTGGCCGC	AGAGGCACCT	GTCGCCAGGT	GGGGGGTTCC	GCTGCCTGCA
AAGGGTCGCT	ACAGACGTTG	TTTGTCTTCA	2700		
AGAAGCTTCC	AGAGGAACTG	CTTCCTTCAC	GACATTCAAC	AGACCTTGCA	TTCCTTTGGC
GAGAGGGGAA	AGACCCCTAG	GAATGCTCGT	2790		
CAAGAAGACA	GGGCCAGGTT	TCCGGGCCCT	CACATTGCCA	AAAGACGGCA	ATATGGTGGA
AAATCACATA	TAGACAAACA	CACACCGGCC	2880		
TTATTCCAAG	CGGCTTCGGC	CAGTAACGTT	AGGGGGGGGG	GAGGGAGAGG	GGCGAATTGG
CCGCCCTAGA	TGCATGCTCG	ATCGACCTGC	2970		
AGGCATGCAA	GCTTCTCCTC	CCTTTAGTGA	GGGTAATTCT	CTCTCTCTCC	CTATAGTGAG
TCGTATTAAT	TCCTTCTCTT	CTATAGTGTC	3060		
ACCTAAATCG	TTGGAGCTTG	GCGTAATCAT	GGTCATAGCT	GTTTCCTGTG	TGAAATTGTT
ATCCGCTCAC	AATTCCACAC	AACATACGAG	3150		
CCGGAAGCAT	AAAGTGTAAG	GCCTGGGGTG	CCTAATGAGT	GAGCTAACTC	ACATTAATTG
CGTTGCGCTC	ACTGCCCGCT	TTCCAGTCGG	3240		
GAAACCTGTC	GTGCCAGCTG	CATTAATGAA	TCGGCCAACG	CGCGGGGAGA	GGCGGTTTGC
GTATTGGGCG	CTCTTCCGCT	TCCTCGCTCA	3330		
CTGACTCGCT	GCGCTCGGTC	GTTCCGCTGC	GGCGAGCGGT	ATCAGCTCAC	TCAAAGGCGG
TAATACGGTT	ATCCACAGAA	TCAGGGGATA	3420		
ACGCAGGAAA	GAACATGTGA	GCAAAAGGCC	AGCAAAAGGC	CAGGAACCGT	AAAAAGGCCG
CGTTGCTGGC	GTTTTTCCAT	AGGCTCCGCC	3510		
CCCCTGACGA	GCATCACAAA	AATCGACGCT	CAAGTCAGAG	GTGGCGAAAC	CCGACAGGAC
TATAAAGATA	CCAGGCGTTT	CCCCCTGGAA	3600		
GCTCCCTCGT	GCGCTCTCCT	GTTCCGACCC	TGCCGCTTAC	CGGATACCTG	TCCGCCTTTC
TCCCTTCGGG	AAGCGTGGCG	CTTTCTCATA	3690		
GCTCACGCTG	TAGGTATCTC	AGTTCGGTGT	AGGTCGTTCT	CTCCAAGCTG	GGCTGTGTGC
ACGAACCCCC	CGTTCAGCCC	GACCGCTGCG	3780		
CCTTATCCGG	TAACTATCGT	CTTGAGTCCA	ACCCGGTAAG	ACACGACTTA	TCGCCACTGG
CAGCAGCCAC	TGGTAACAGG	ATTAGCAGAG	3870		
CGAGGTATGT	AGGCGGTGCT	ACAGAGTTCT	TGAAGTGGTG	GCCTAACTAC	GGCTACACTA
GAAGGACAGT	ATTTGGTATC	TGCGCTCTGC	3960		
TGAAGCCAGT	TACCTTCGGA	AAAAGAGTTG	GTAGCTCTTG	ATCCGGCAAA	CAAACCACCG
CTGGTAGCGG	TGGTTTTTTT	GTTTGCAAGC	4050		
AGCAGATTAC	GCGCAGAAAA	AAAGGATCTC	AAGAAGATCC	TTTGATCTTT	TCTACGGGGT
CTGACGCTCA	GTGGAACGAA	AACTCACGTT	4140		
AAGGGATTTT	GGTCATGAGA	TTATCAAAAA	GGATCTTCAC	CTAGATCCTT	TTAAATTAAA
AATGAAGTTT	TAAATCAATC	TAAAGTATAT	4230		
ATGAGTAAAC	TTGGTCTGAC	AGTTACCAAT	GCTTAATCAG	TGAGGCACCT	ATCTCAGCGA
TCTGTCTATT	TCGTTTCATC	ATAGTTGCCT	4320		

GACTCCCCGT	CGTG TAGATA	ACTACGATAC	GGGAGGGCTT	ACCATCTGGC	CCCAGTGCTG
CAATGATACC	GCGAGACCCA	CGCTCACC GG	4410		
CTCCAGATTT	ATCAGCAATA	AACCAGCCAG	CCGGAAGGGC	CGAGCGCAGA	AGTGGTCCTG
CAACTTTATC	CGCCTCCATC	CAGTCTATTA	4500		
ATTGTTGCCG	GGAAGCTAGA	GTAAGTAGTT	CGCCAGTTAA	TAGTTTGCGC	AACGTTGTTG
CCATTGCTAC	AGGCATCGTG	GTGTCACGCT	4590		
CGTCGTTTGG	TATGGCTTCA	TTCAGCTCCG	GTTCCCAACG	ATCAAGGCGA	GTTACATGAT
CCCCCATGTT	GTGCAAAAAA	GCGGTTAGCT	4680		
CCTTCGGTCC	TCCGATCGTT	GTCAGAAGTA	AGTTGGCCGC	AGTGTTATCA	CTCATGGTTA
TGGCAGCACT	GCATAATTCT	CTTACTGTCA	4770		
TGCCATCCGT	AAGATGCTTT	TCTGTGACTG	GTGAGTACTC	AACCAAGTCA	TTCTGAGAAT
AGTGTATGCG	GCGACCGAGT	TGCTCTTGCC	4860		
CGGCGTCAAT	ACGGGATAAT	ACCGCGCCAC	ATAGCAGAAC	TTTAAAAGTG	CTCATCATTG
GAAAACGTTT	TCGGGGGCGA	AAACTCTCAA	4950		
GGATCTTACC	GCTGTTGAGA	TCCAGTTCGA	TGTAACCCAC	TCGTGCACCC	AACTGATCTT
CAGCATCTTT	TACTTTCACC	AGCGTTTCTG	5040		
GGTGAGCAAA	AACAGGAAGG	CAAAATGCCG	CAAAAAAGGG	AATAAGGGCG	ACACGGAAAT
GTTGAATACT	CATACTCTTC	CTTTTTCAAT	5130		
ATTATTGAAG	CATTTATCAG	GGTTATTGTC	TCATGAGCGG	ATACATATTT	GAATGTATTT
AGAAAAATAA	ACAAATAGGG	GTTCCGCGCA	5220		
CATTTCCCCG	AAAAGTGCCA	CCTGACGTCT	AAGAAACCAT	TATTATCATG	ACATTAACCT
ATAAAAAATAG	GCGTATCACG	AGGCCCTTTC	5310		
GTC			5313		

SEQ ID NO:49  
 SIZE 7940  
 DNA: R023

TGGCCATTGC	ATACGTTGTA	TCCATATCAT	AATATGTACA	TTTATATTGG	CTCATGTCCA
ACATTACCGC	CATGTTGACA	TTGATTATTG	90		
ACTAGTTATT	AATAGTAATC	AATTACGGGG	TCATTAGTTC	ATAGCCCAT	TATGGAGTTC
CGCGTTACAT	AACTTACGGT	AAATGGCCCCG	180		
CCTGGCTGAC	CGCCCAACGA	CCCCCGCCCA	TTGACGTCAA	TAATGACGTA	TGTTCCCAT
GTAACGCCAA	TAGGGACTTT	CCATTGACGT	270		
CAATGGGTGG	AGTATTTACG	GTAAACTGCC	CACTTGGCAG	TACATCAAGT	GTATCATATG
CCAAGTACGC	CCCCTATTGA	CGTCAATGAC	360		
GGTAAATGGC	CCGCCTGGCA	TTATGCCCAG	TACATGACCT	TATGGGACTT	TCCTACTTGG
CAGTACATCT	ACGTATTAGT	CATCGCTATT	450		
ACCATGGTGA	TGCGGTTTTG	GCAGTACATC	AATGGGCGTG	GATAGCGGTT	TGACTCACGG
GGATTTCCAA	GTCTCCACCC	CATTGACGTC	540		
AATGGGAGTT	TGTTTTGGCA	CCAAAATCAA	CGGGACTTTC	CAAAATGTCT	TAACAACTCC
GCCCCATTGA	CGCAAATGGG	CGGTAGGCGT	630		

GTACGGTGGG	AGGTCTATAT	AAGCAGAGCT	CGTTTAGTGA	ACCGTCAGAT	CGCCTGGAGA
CGCCATCCAC	GCTGTTTTGA	CCTCCATAGA	720		
AGACACCGGG	ACCGATCCAG	CCTCCGCGGC	CGGGAACGGT	GCATTGGAAC	GCGGATTCCC
CGTGCCAAGA	GTGACGTAAG	TACCGCCTAT	810		
AGACTCTATA	GGCACACCCC	TTTGGCTCTT	ATGCATGCTA	TACTGTTTTT	GGCTTGGGGC
CTATACACCC	CCGCTTCCTT	ATGCTATAGG	900		
TGATGGTATA	GCTTAGCCTA	TAGGTGTGGG	TTATTGACCA	TTATTGACCA	CTCCAACGGT
GGAGGGCAGT	GTAGTCTGAG	CAGTACTCGT	990		
TGCTGCCGCG	CGCGCCACCA	GACATAATAG	CTGACAGACT	AACAGACTGT	TCCTTTCCAT
GGGTCTTTTC	TGCAGTCACC	GTCGTCGACG	1080		
GSTATCGATAA	GCTTGATCCA	CCGCGGTGGC	GGCCTGGCAC	GACAGGTTTC	CCGACTGGAA
AGCGGGCAGT	GAGCGCAACG	CAATTAATGT	1170		
GAGTTAGCTC	ACTCATTAGG	CACCCCAGGC	TTTACACTTT	ATGCTTCCGG	CTCGTATGTT
GTGTGGAATT	GTGAGCGGAT	AACAATTTCA	1260		
CACAGGAAAC	AGCTATGACC	ATGATTACGC	CAAGCTCCAA	CGATTTAGGT	GACACTATAG
AAGAGAAGGA	ATTAATACGA	CTCACTATAG	1350		
GGAGAGAGAG	AGAATTACCC	TACTATAAGG	GAGGAGAAGC	TTGCATGCCT	GCAGGTCGAC
TCTAGAGGAT	CCCCCGGGCT	GCAGGAATTC	1440		
CGCNMNCCT	CTCCCTCCCC	CCCCCCTAAC	GTTACTGGCC	GAAGCCGCTT	GGAATAAGGC
CGGTGTGCGT	TTGTCTATAT	GTTATTTTCC	1530		
ACCATATTGC	CGTCTTTTGG	CAATGTGAGG	GCCCCGAAAC	CTGGCCCTGT	CTTCTTGACG
AGCATTCCTA	GGGGTCTTTC	CCCTCTCGCC	1620		
AAAGGAATGC	AAGGTCTGTT	GAATGTCGTG	AAGGAAGCAG	TTCCTCTGGA	AGCTTCTTGA
AGACAAACAA	CGTCTGTAGC	GACCCTTTGC	1710		
AGGCAGCGGA	ACCCCCCACC	TGGCGACAGG	TGCCTCTGCG	GCCAAAAGCC	ACGTGTATAA
GATACACCTG	CAAAGCGGCG	ACAACCCCAG	1800		
TGCCACGTTG	TGAGTTGGAT	AGTTGTGGAA	AGAGTCAAAT	GGCTCTCCTC	AAGCGTATTC
AACAAGGGGC	TGAAGGATGC	CCAGAAGGTA	1890		
CCCCATTGTA	TGGGATCTGA	TCTGGGGCCT	CGGTGCACAT	GCTTTACATG	TGTTTAGTCG
AGGTTAAAAA	AACGTCTAGG	CCCCCGAAC	1980		
CACGGGGACG	TGGTTTTCTT	TTGAAAAACA	CGATGATAAT	ATGGCCACAA	CCATGGACAC
GATTAACATC	GCTAAGAACG	ACTTCTCTGA	2070		
CATCGAACTG	GCTGCTATCC	CGTTCAACAC	TCTGGCTGAC	CATTACGGTG	AGCGTTTAGC
TCGCGAACAG	TTGGCCCTTG	AGCATGAGTC	2160		
TTACGAGATG	GGTGAAGCAC	GCTTCCGCAA	GATGTTTGAG	CGTCAACTTA	AAGCTGGTGA
GGTTGCGGAT	AACGCTGCCG	CCAAGCCTCT	2250		
CATCACTACC	CTACTCCCTA	AGATGATTGC	ACGCATCAAC	GACTGGTTTG	AGGAAGTGAA
AGCTAAGCGC	GGCAAGCGCC	CGACAGCCTT	2340		
CCAGTTCCTG	CAAGAAATCA	AGCCGGAAGC	CGTAGCGTAC	ATCACCATTA	AGACCACTCT
GGCTTGCCCTA	ACCAGTGCTG	ACAATACAAC	2430		

CGTTCAGGCT	GTAGCAAGCG	CAATCGGTCG	GGCCATTGAG	GACGAGGCTC	GCTTCGGTCTG
TATCCGTGAC	CTTGAAGCTA	AGCACTTCAA	2520		
GAAAAACGTT	GAGGAACAAC	TCAACAAGCG	CGTAGGGCAC	GTCTACAAGA	AAGCATTAT
GCAAGTTGTC	GAGGCTGACA	TGCTCTCTAA	2610		
GGGTCTACTC	GGTGGCGAGG	CGTGGTCTTC	GTGGCATAAG	GAAGACTCTA	TTCATGTAGG
AGTACGCTGC	ATCGAGATGC	TCATTGAGTC	2700		
AACCGGAATG	GTTAGCTTAC	ACCGCCAAAA	TGCTGGCGTA	GTAGGTCAAG	ACTCTGAGAC
TATCGAACTC	GCACCTGAAT	ACGCTGAGGC	2790		
TATCGCAACC	CGTGCAGGTG	CGCTGGCTGG	CATCTCTCCG	ATGTTCCAAC	CTTGCGTAGT
TCCTCCTAAG	CCGTGGACTG	GCATTACTGG	2880		
TGGTGGCTAT	TGGGCTAACG	GTCGTCGTCC	TCTGGCGCTG	GTGCGTACTC	ACAGTAAGAA
AGCACTGATG	CGCTACGAAG	ACGTTTACAT	2970		
GCCTGAGGTG	TACAAAGCGA	TTAACATTGC	GCAAAACACC	GCATGGAAAA	TCAACAAGAA
AGTCCTAGCG	GTCGCCAACG	TAATCACCAA	3060		
GTGGAAGCAT	TGTCCGGTCG	AGGACATCCC	TGCGATTGAG	CGTGAAGAAC	TCCCAGTGAA
ACCGGAAGAC	ATCGACATGA	ATCCTGAGGC	3150		
TCTCACCGCG	TGGAACGTCG	CTGCCGCTGC	TGTGTACCGC	AAGGACAAGG	CTCGCAAGTC
TCGCCGTATC	AGCCTTGAGT	TCATGCTTGA	3240		
GCAAGCCAAT	AAGTTTGCTA	ACCATAAGGC	CATCTGGTTC	CCTTACAACA	TGGACTGGCG
CGGTCTGTGT	TACGCTGTGT	CAATGTTCAA	3330		
CCCCGAAGGT	AACGATATGA	CCAAAGGACT	GCTTACGCTG	GCGAAAGGTA	AACCAATCGG
TAAGGAAGGT	TACTACTGGC	TGAAAATCCA	3420		
CGGTGCAAAC	TGTGCGGGTG	TCGATAAGGT	TCCGTTCCCT	GAGCGCATCA	AGTTCATTGA
GGAAAACCAC	GAGAACATCA	TGGCTTGCGC	3510		
TAAGTCTCCA	CTGGAGAACA	CTTGGTGGGC	TGAGCAAGAT	TCTCCGTTCT	GCTTCCTTGC
GTTCTGCTTT	GAGTACGCTG	GGGTACAGCA	3600		
CCACGGCCTG	AGCTATAACT	GCTCCCTTCC	GCTGGCGTTT	GACGGGTCTT	GCTCTGGCAT
CCAGCACTTC	TCCGCGATGC	TCCGAGATGA	3690		
GGTAGGTGGT	CGCGCGGTTA	ACTTGCTTCC	TAGTGAAACC	GTTACAGGACA	TCTACGGGAT
TGTTGCTAAG	AAAGTCAACG	AGATTCTACA	3780		
AGCAGACGCA	ATCAATGGGA	CCGATAACGA	AGTAGTTACC	GTGACCGATG	AGAACACTGG
TGAAATCTCT	GAGAAAGTCA	AGCTGGGCAC	3870		
TAAGGCACTG	GCTGGTCAAT	GGCTGGCTTA	CGGTGTTACT	CGCAGTGTGA	CTAAGCGTTC
AGTCATGACG	CTGGCTTACG	GGTCCAAAGA	3960		
GTTCTGGCTTC	CGTCAACAAG	TGCTGGAAGA	TACCATTGAG	CCAGCTATTG	ATTCCGGCAA
GGGTCTGATG	TTCACTCAGC	CGAATCAGGC	4050		
TGCTGGATAC	ATGGCTAAGC	TGATTTGGGA	ATCTGTGAGC	GTGACGGTGG	TAGCTGCGGT
TGAAGCAATG	AACTGGCTTA	AGTCTGCTGC	4140		
TAAGCTGCTG	GCTGCTGAGG	TCAAAGATAA	GAAGACTGGA	GAGATTCTTC	GCAAGCGTTG
CGCTGTGCAT	TGGGTAATCT	CTGATGGTTT	4230		

CCCTGTGTGG	CAGGAATACA	AGAAGCCTAT	TCAGACGCGC	TTGAACCTGA	TGTTCCCTCGG
TCAGTTCCGC	TTACAGCCTA	CCATTAACAC	4320		
CAACAAAGAT	AGCGAGATTG	ATGCACACAA	ACAGGAGTCT	GGTATCGCTC	CTAACTTTGT
ACACAGCCAA	GACGGTAGCC	ACCTTCGTAA	4410		
GACTGTAGTG	TGGGCACACG	AGAAGTACGG	AATCGAATCT	TTTGCACTGA	TTCACGACTC
CTTCGGTACC	ATTCCGGCTG	ACGCTGCGAA	4500		
CCTGTTCAAA	GCAGTGC GCG	AAACTATGGT	TGACACATAT	GAGTCTTGTG	ATGTACTGGC
TGATTTCTAC	GACCAGTTCG	CTGACCAGTT	4590		
GCACGAGTCT	CAATTGGACA	AAATGCCAGC	ACTTCCGGCT	AAAGGTA ACT	TGAACCTCCG
TGACATCTTA	GAGTCGGACT	TCGCGTTCGC	4680		
GTAACGCCAA	ATCAATACGA	CTCCGGATCT	GAAC TTGTTT	ATTGCAGCTT	ATAATGGTTA
CAAATAAAGC	AATAGCATCA	CAAATTTTAC	4770		
AAATAAAGCA	TTTTTTTAC	TGCATTCTAG	TTGTGGTTTG	TCCAAACTCA	TCAATGTATC
TTATCATGTC	TGGATCTGGT	TACCACTAAA	4860		
CCAGCCTCAA	GAACACCCGA	ATGGAGTCTC	TAAGCTACAT	AATACCAACT	TACACTTTAC
AAAATGTTGT	CCCCCAAAAT	GTAGCCATTC	4950		
GTATCTGCTC	CTAATAAAAA	GAAAGTTTCT	TCACATTCTA	AAAAAAAAAA	AAAAAAAAAA
AACCCCCCCC	CCCCCCCCC	CCCCCCCCC	5040		
CCTGCAGGTC	GACTCTAGAG	GATCTTTTTC	CCTCGCCAAA	AATTATGGGG	ACATCATGAA
GCCCCTTGAG	CATCTGACTT	CTGGCTAATA	5130		
AAGGAAATTT	ATTTCAATTG	AATAGTGTGT	TGGAATTTTT	TGTGTCTCTC	ACTCGGAAGG
ACATATGGGA	GGGCAAATCA	TTTAAAACAT	5220		
CAGAATCAGT	ATTTGGTTTA	GAGTTTGGCA	ACATATGCCA	TTCTTCCGCT	TCCTCGCTCA
CTGACTCGCT	GCGCTCGGTC	GTTCGGCTGC	5310		
GGCGAGCGGT	ATCAGCTCAC	TCAAAGGCGG	TAATACGGTT	ATCCACAGAA	TCAGGGGATA
ACGCAGGAAA	GAACATGTGA	GCAAAAGGCC	5400		
AGCAAAAGGC	CAGGAACCGT	AAAAAGGCCG	CGTTGCTGGC	GTTTTTCCAT	AGGCTCCGCC
CCCCTGACGA	GCATCACAAA	AATCGACGCT	5490		
CAAGTCAGAG	GTGGCGAAAC	CCGACAGGAC	TATAAAGATA	CCAGGCGTTT	CCCCCTGGAA
GCTCCCTCGT	GCGCTCTCCT	GTTCCGACCC	5580		
TGCCGCTTAC	CGGATACCTG	TCCGCCTTTC	TCCCTTCGGG	AAGCGTGGCG	CTTTCTCAAT
GCTCACGCTG	TAGGTATCTC	AGTTCGGTGT	5670		
AGGTCGTTTC	CTCCAAGCTG	GGCTGTGTGC	ACGAACCCCC	CGTTCAGCCC	GACCGCTGCG
CCTTATCCGG	TAAC TATCGT	CTTGAGTCCA	5760		
ACCCGGTAAG	ACACGACTTA	TCGCCACTGG	CAGCAGCCAC	TGGTAACAGG	ATTAGCAGAG
CGAGGTATGT	AGGCGGTGCT	ACAGAGTTCT	5850		
TGAAGTGGTG	GCCTAACTAC	GGCTACACTA	GAAGGACAGT	ATTTGGTATC	TGCGCTCTGC
TGAAGCCAGT	TACCTTCGGA	AAAAGAGTTG	5940		
GTAGCTCTTG	ATCCGGCAAA	CAAACCACCG	CTGGTAGCGG	TGGTTTTTTT	GTTTGCAAGC
AGCAGATTAC	GCGCAGAAAA	AAAGGATCTC	6030		

AAGAAGATCC	TTTGATCTTT	TCTACGGGGT	CTGACGCTCA	GTGGAACGAA	AACTCACGTT
AAGGGATTTT	GGTCATGAGA	TTATCAAAAA	6120		
GGATCTTCAC	CTAGATCCTT	TTAAATTAAA	AATGAAGTTT	TAAATCAATC	TAAAGTATAT
ATGAGTAAAC	TTGGTCTGAC	AGTTACCAAT	6210		
GCTTAATCAG	TGAGGCACCT	ATCTCAGCGA	TCTGTCTATT	TCGTTTCATCC	ATAGTTGCCT
GACTCCGGGG	GGGGGGGGCG	CTGAGGTCTG	6300		
CCTCGTGAAG	AAGGTGTTGC	TGACTCATAC	CAGGCCTGAA	TCGCCCCATC	ATCCAGCCAG
AAAGTGAGGG	AGCCACGGTT	GATGAGAGCT	6390		
TTGTTGTAGG	TGGACCAGTT	GGTGATTTTG	AACTTTTGCT	TTGCCACGGA	ACGGTCTGCG
TTGTCGGGAA	GATGCGTGAT	CTGATCCTTC	6480		
AACTCAGCAA	AAGTTCGATT	TATTCAACAA	AGCCGCCGTC	CCGTCAAGTC	AGCGTAATGC
TCTGCCAGTG	TTACAACCAA	TTAACCAATT	6570		
CTGATTAGAA	AAACTCATCG	AGCATCAAAT	GAAACTGCAA	TTTATTCATA	TCAGGATTAT
CAATACCATA	TTTTTGAAAA	AGCCGTTTCT	6660		
GTAATGAAGG	AGAAAACTCA	CCGAGGCAGT	TCCATAGGAT	GGCAAGATCC	TGGTATCGGT
CTGCGATTCC	GACTCGTCCA	ACATCAATAC	6750		
AACCTATTAA	TTTCCCCTCG	TCAAAAATAA	GGTTATCAAG	TGAGAAATCA	CCATGAGTGA
CGACTGAATC	CGGTGAGAAT	GGCAAAAGCT	6840		
TATGCATTTT	TTTCCAGACT	TGTTCAACAG	GCCAGCCATT	ACGCTCGTCA	TCAAAATCAC
TCGCATCAAC	CAAACCGTTA	TTCATTCTGT	6930		
ATTGCGCCTG	AGCGAGACGA	AATACGCGAT	CGCTGTTAAA	AGGACAATTA	CAAACAGGAA
TCGAATGCAA	CCGGCGCAGG	AACACTGCCA	7020		
GCGCATCAAC	AATATTTTCA	CCTGAATCAG	GATATTCTTC	TAATACCTGG	AATGCTGTTT
TCCCAGGGAT	CGCAGTGGTG	AGTAACCATG	7110		
CATCATCAGG	AGTACGGATA	AAATGCTTGA	TGGTCGGAAG	AGGCATAAAT	TCCGTCAGCC
AGTTTAGTCT	GACCATCTCA	TCTGTAACAT	7200		
CATTGGCAAC	GCTACCTTTG	CCATGTTTCA	GAAACAACCTC	TGGCGCATCG	GGCTTCCCAT
ACAATCGATA	GATTGTCGCA	CCTGATTGCC	7290		
CGACATTATC	GCGAGCCCAT	TTATACCCAT	ATAAATCAGC	ATCCATGTTG	GAATTTAATC
GCGGCCTCGA	GCAAGACGTT	TCCCCTTGAA	7380		
TATGGCTCAT	AACACCCCTT	GTATTACTGT	TTATGTAAGC	AGACAGTTTT	ATTGTTTCATG
ATGATATATT	TTTATCTTGT	GCAATGTAAC	7470		
ATCAGAGATT	TTGAGACACA	ACGTGGCTTT	CCCCCCCCC	CCATTATTGA	AGCATTTATC
AGGGTTATTG	TCTCATGAGC	GGATACATAT	7560		
TTGAATGTAT	TTAGAAAAAT	AAACAAATAG	GGGTTCCGCG	CACATTTCCC	CGAAAAGTGC
CACCTGACGT	CTAAGAAACC	ATTATTATCA	7650		
TGACATTAAC	CTATAAAAAAT	AGGCGTATCA	CGAGGCCCTT	TCGTCCTCGC	GCGTTTCGGT
GATGACGGTG	AAAACCTCTG	ACACATGCAG	7740		
CTCCCGGAGA	CGGTCACAGC	TTGTCTGTAA	GCGGATGCCG	GGAGCAGACA	AGCCCGTCAG
GGCGCGTCAG	CGGGTGTTGG	CGGGTGTCGG	7830		

GGCTGGCTTA ACTATGCGGC ATCAGAGCAG ATTGTACTGA GAGTGCACCA TATGCGGTGT  
GAAATACCGC ACAGATGCGT AAGGAGAAAA 7920  
TACCGCATCA GATTGGCTAT 7940

SEQ ID NO:50  
SIZE 7802  
DNA: R065: CMV-HIS-VP22-T7RNAP fusion protein

TGGCCATTGC ATACGTTGTA TCCATATCAT AATATGTACA TTTATATTGG CTCATGTCCA  
ACATTACCGC CATGTTGACA TTGATTATTG 90  
ACTAGTTATT AATAGTAATC AATTACGGGG TCATTAGTTC ATAGCCCATA TATGGAGTTC  
CGCGTTACAT AACTTACGGT AAATGGCCCCG 180  
CCTGGCTGAC CGCCCAACGA CCCCCGCCCA TTGACGTCAA TAATGACGTA TGTTCCCATA  
GTAACGCCAA TAGGGACTTT CCATTGACGT 270  
CAATGGGTGG AGTATTTACG GTAAACTGCC CACTTGGCAG TACATCAAGT GTATCATATG  
CCAAGTACGC CCCCTATTGA CGTCAATGAC 360  
GGTAAATGGC CCGCCTGGCA TTATGCCCAG TACATGACCT TATGGGACTT TCCTACTTGG  
CAGTACATCT ACGTATTAGT CATCGCTATT 450  
ACCATGGTGA TGCGGTTTTG GCAGTACATC AATGGGCGTG GATAGCGGTT TGA CTCACGG  
GGATTTCCAA GTCTCCACCC CATTGACGTC 540  
AATGGGAGTT TGTTTTGGCA CCAAATCAA CGGGACTTTC CAAAATGTCTG TAACAACTCC  
GCCCCATTGA CGCAAATGGG CGGTAGGCGT 630  
GTACGGTGGG AGGTCTATAT AAGCAGAGCT CGTTTAGTGA ACCGTCAGAT CGCCTGGAGA  
CGCCATCCAC GCTGTTTTGA CCTCCATAGA 720  
AGACACCGGG ACCGATCCAG CCTCCGCGGC CGGGAACGGT GCATTGGAAC GCGGATTCCC  
CGTGCCAAGA GTGACGTAAG TACCGCCTAT 810  
AGAGTCTATA GGCCACCCC CTTGGCTTCT TATGCATGCT ATACTGTTTT TGGCTTGGGG  
TCTATACACC CCCGCTTCCT CATGTTATAG 900  
GTGATGGTAT AGCTTAGCCT ATAGGTGTGG GTTATTGACC ATTATTGACC ACTCCAACGG  
TGGAGGGCAG TGTAGTCTGA GCAGTACTCG 990  
TTGCTGCCGC GCGCGCCACC AGACATAATA GCTGACAGAC TAACAGACTG TTCCTTTCCA  
TGGGTCTTTT CTGCAGTCAC CGTCGTCGAC 1080  
GGTATCGATA AGCTTGAATT CATGCACCAC CACCACCACC ACCACCACGA GCTTATTATG  
ACCTCTCGCC GCTCCGTGAA GTCGGGTCCG 1170  
CGGGAGGTTC CGCGCGATGA GTACGAGGAT CTGTACTACA CCCCCTCTTC AGGTATGGCG  
AGTCCCGATA GTCCGCCTGA CACCTCCCGC 1260  
CGTGCGCCCC TACAGACACG CTCGCGCCAG AGGGGCGAGG TCCGTTTCGT CCAGTACGAC  
GAGTCGGATT ATGCCCTCTA CGGGGGCTCG 1350  
TCTTCCGAAG ACGACGAACA CCCGGAGGTC CCCCAGGACG GCGTCCCGT TTCCGGGGCG  
GTTTTGTCCG GCCCGGGGCC TGCGCGGGCG 1440  
CCTCCGCCAC CCGCTGGGTC CGGAGGGGCC GGACGCACAC CCACCACCGC CCCCAGGGCC  
CCCCGAACCC AGCGGGTGGC GTCTAAGGCC 1530

CCCGCGGCCC	CGGCGGCGGA	GACCACCCGC	GGCAGGAAAT	CGGCCCAGCC	AGAATCCGCC
GCACTCCCAG	ACGCCCCCGC	GTCGACGGCG	1620		
CCAACCCGAT	CCAAGACACC	CGCGCAGGGG	CTGGCCAGAA	AGCTGCACTT	TAGCACCGCC
CCCCCAAACC	CCGACGCGCC	ATGGACCCCC	1710		
CGGGTGGCCG	GCTTTAACAA	GCGCGTCTTC	TGCGCCGCGG	TCGGGCGCCT	GGCGGCCATG
CATGCCCCGA	TGGCGGCTGT	CCAGCTCTGG	1800		
GACATGTTCG	GTCCGCGCAC	AGACGAAGAC	CTCAACGAAC	TCCTTGGCAT	CACCACCATC
CGCGTGACGG	TCTGCGAGGG	CAAAAACCTG	1890		
CTTCAGCGCG	CCAACGAGTT	GGTGAATCCA	GACGTGGTGC	AGGACGTCGA	CGCGGCCACG
GCGACTCGAG	GGCGTTCTGC	GGCGTCGCGC	1980		
CCCACCGAGC	GACCTCGAGC	CCCAGCCCGC	TCCGCTTCTC	GCCCCAGACG	GCCCCGTCGAG
GCCACAACCA	TGGACACGAT	TAACATCGCT	2070		
AAGAACGACT	TCTCTGACAT	CGAACTGGCT	GCTATCCCGT	TCAACACTCT	GGCTGACCAT
TACGGTGAGC	GTTTAGCTCG	CGAACAGTTG	2160		
GCCCTTGAGC	ATGAGTCTTA	CGAGATGGGT	GAAGCACGCT	TCCGCAAGAT	GTTTGAGCGT
CAACTTAAAG	CTGGTGAGGT	TGCGGATAAC	2250		
GCTGCCGCCA	AGCCTCTCAT	CACTACCCTA	CTCCCTAAGA	TGATTGCACG	CATCAACGAC
TGGTTTGAGG	AAGTGAAAGC	TAAGCGCGGC	2340		
AAGCGCCCGA	CAGCCTTCCA	GTTCTTGCAA	GAAATCAAGC	CGGAAGCCGT	AGCGTACATC
ACCATTAAGA	CCACTCTGGC	TTGCCTAACC	2430		
AGTGCTGACA	ATACAACCGT	TCAGGCTGTA	GCAAGCGCAA	TCGGTCGGGC	CATTGAGGAC
GAGGCTCGCT	TCGGTCGTAT	CCGTGACCTT	2520		
GAAGCTAAGC	ACTTCAAGAA	AAACGTTGAG	GAACAACCTCA	ACAAGCGCGT	AGGGCACGTC
TACAAGAAAG	CATTTATGCA	AGTTGTCGAG	2610		
GCTGACATGC	TCTCTAAGGG	TCTACTCGGT	GGCGAGGCGT	GGTCTTCGTG	GCATAAGGAA
GACTCTATTC	ATGTAGGAGT	ACGCTGCATC	2700		
GAGATGCTCA	TTGAGTCAAC	CGGAATGGTT	AGCTTACACC	GCCAAAATGC	TGGCGTAGTA
GGTCAAGACT	CTGAGACTAT	CGAACTCGCA	2790		
CCTGAATACG	CTGAGGCTAT	CGCAACCCGT	GCAGGTGCGC	TGGCTGGCAT	CTCTCCGATG
TTCCAACCTT	GCGTAGTTCC	TCCTAAGCCG	2880		
TGGACTGGCA	TTACTGGTGG	TGGCTATTGG	GCTAACGGTC	GTCGTCCTCT	GGCGCTGGTG
CGTACTCACA	GTAAGAAAGC	ACTGATGCGC	2970		
TACGAAGACG	TTTACATGCC	TGAGGTGTAC	AAAGCGATTA	ACATTGCGCA	AAACACCGCA
TGGAAAATCA	ACAAGAAAGT	CCTAGCGGTC	3060		
GCCAACGTAA	TCACCAAGTG	GAAGCATTGT	CCGGTCGAGG	ACATCCCTGC	GATTGAGCGT
GAAGAACTCC	CGATGAAACC	GGAAGACATC	3150		
GACATGAATC	CTGAGGCTCT	CACCGCGTGG	AAACGTGCTG	CCGCTGCTGT	GTACCGCAAG
GACAAGGCTC	GCAAGTCTCG	CCGTATCAGC	3240		
CTTGAGTTCA	TGCTTGAGCA	AGCCAATAAG	TTTGCTAACC	ATAAGGCCAT	CTGGTTCCCT
TACAACATGG	ACTGGCGCGG	TCGTGTTTAC	3330		



GCTGTGTCAA	TGTTCAACCC	GCAAGGTAAC	GATATGACCA	AAGGACTGCT	TACGCTGGCG
AAAGGTAAAC	CAATCGGTAA	GGAAGGTTAC	3420		
TACTGGCTGA	AAATCCACGG	TGCAAACGTGT	GCGGGTGTCTG	ATAAGGTTCC	GTTCCCTGAG
CGCATCAAGT	TCATTGAGGA	AAACCACGAG	3510		
AACATCATGG	CTTGCGCTAA	GTCTCCACTG	GAGAACAACCTT	GGTGGGCTGA	GCAAGATTCT
CCGTTCTGCT	TCCTTGCGTT	CTGCTTTGAG	3600		
TACGCTGGGG	TACAGCACCA	CGGCCTGAGC	TATAACTGCT	CCCTTCCGCT	GGCGTTTGAC
GGGTCTTGCT	CTGGCATCCA	GCACTTCTCC	3690		
GCGATGCTCC	GAGATGAGGT	AGGTGGTCGC	GCGGTTAACT	TGCTTCCTAG	TGAAACCGTT
CAGGACATCT	ACGGGATTGT	TGCTAAGAAA	3780		
GTCAACGAGA	TTCTACAAGC	AGACGCAATC	AATGGGACCG	ATAACGAAGT	AGTTACCGTG
ACCGATGAGA	ACACTGGTGA	AATCTCTGAG	3870		
AAAGTCAAGC	TGGGCACTAA	GGCACTGGCT	GGTCAATGGC	TGGCTTACGG	TGTTACTCGC
AGTGTGACTA	AGCGTTCAGT	CATGACGCTG	3960		
GCTTACGGGT	CCAAAGAGTT	CGGCTTCCGT	CAACAAGTGC	TGGAAGATAC	CATTTCAGCCA
GCTATTGATT	CCGGCAAGGG	TCTGATGTTT	4050		
ACTCAGCCGA	ATCAGGCTGC	TGGATACATG	GCTAAGCTGA	TTTGGGAATC	TGTGAGCGTG
ACGGTGGTAG	CTGCGGTTGA	AGCAATGAAC	4140		
TGGCTTAAGT	CTGCTGCTAA	GCTGCTGGCT	GCTGAGGTCA	AAGATAAGAA	GACTGGAGAG
ATTCTTCGCA	AGCGTTGCGC	TGTGCATTGG	4230		
GTAACCTCCTG	ATGGTTTCCC	TGTGTGGCAG	GAATACAAGA	AGCCTATTCA	GACGCGCTTG
AACCTGATGT	TCCTCGGTCA	GTTCCGCTTA	4320		
CAGCCTACCA	TTAACACCAA	CAAAGATAGC	GAGATTGATG	CACACAAACA	GGAGTCTGGT
ATCGCTCCTA	ACTTTGTACA	CAGCCAAGAC	4410		
GGTAGCCACC	TTCGTAAGAC	TGTAGTGTGG	GCACACGAGA	AGTACGGAAT	CGAATCTTTT
GCACTGATTC	ACGACTCCTT	CGGTACCATT	4500		
CCGGCTGACG	CTGCGAACCT	GTTCAAAGCA	GTGCGCGAAA	CTATGGTTGA	CACATATGAG
TCTTGTGATG	TACTGGCTGA	TTTCTACGAC	4590		
CAGTTCGCTG	ACCAAGTTGA	CGAGTCTCAA	TTGGACAAAA	TGCCAGCACT	TCCGGCTAAA
GGTAACTTGA	ACCTCCGTGA	CATCTTAGAG	4680		
TCGGACTTCG	CGTTCGCGTA	ACGCCAAATC	AATACGACTC	CGGATCTGAA	CTTGTTTTATT
GCAGCTTATA	ATGGTTACAA	ATAAAGCAAT	4770		
AGCATCACAA	ATTTACAAAA	TAAAGCATTT	TTTTCACTGC	ATTCTAGTTG	TGGTTTGTCC
AAACTCATCA	ATGTATCTTA	TCATGTCTGG	4860		
ATCTGGTTAC	ATCGAATTCA	CGTGGGCCCCG	GTACCGTATA	CTCTAGAGCG	GCCGCGGATC
CAGATCTTTT	TCCCTCGCCA	AAAATTATGG	4950		
GGACATCATG	AAGCCCCCTTG	AGCATCTGAC	TTCTGGCTAA	TAAAGGAAAT	TTATTTTCATT
GCAATAGTGT	GTTGGAATTT	TTTGTGTCTC	5040		
TCACTCGGAA	GGACATATGG	GAGGGCAAAT	CATTTAAAAAC	ATCAGAATCA	GTATTTGGTT
TAGAGTTTGG	CAACATATGC	CATTCTTCCG	5130		

CTTCTCTCGCT CACTGACTCG CTGCGCTCGG TCGTTCGGCT GCGGCGAGCG GTATCAGCTC  
 ACTCAAAGGC GGTAATACGG TTATCCACAG 5220  
 AATCAGGGGA TAACGCAGGA AAGAACATGT GAGCAAAAGG CCAGCAAAAG GCCAGGAACC  
 GTAAAAAGGC CGCGTTGCTG GCGTTTTTCC 5310  
 ATAGGCTCCG CCCCCCTGAC GAGCATCACA AAAATCGACG CTCAAGTCAG AGGTGGCGAA  
 ACCCGACAGG ACTATAAAGA TACCAGGCGT 5400  
 TTCCCCCTGG AAGCTCCCCTC GTGCGCTCTC CTGTTCCGAC CCTGCCGCTT ACCGGATACC  
 TGTCCGCCTT TCTCCCTTCG GGAAGCGTGG 5490  
 CGCTTTCTCA ATGCTCACGC TGTAGGTATC TCAGTTCGGT GTAGGTCGTT CGTCCAAGC  
 TGGGCTGTGT GCACGAACCC CCCGTTACAGC 5580  
 CCGACCGCTG CGCCTTATCC GGTAACATATC GTCTTGAGTC CAACCCGGTA AGACACGACT  
 TATCGCCACT GGCAGCAGCC ACTGGTAACA 5670  
 GGATTAGCAG AGCGAGGTAT GTAGGCGGTG CTACAGAGTT CTTGAAGTGG TGGCCTAACT  
 ACGGCTACAC TAGAAGGACA GTATTTGGTA 5760  
 TCTGCGCTCT GCTGAAGCCA GTTACCTTCG GAAAAAGAGT TGGTAGCTCT TGATCCGGCA  
 AACAAACCAC CGCTGGTAGC GGTGGTTTTT 5850  
 TTGTTTGCAA GCAGCAGATT ACGCGCAGAA AAAAAGGATC TCAAGAAGAT CCTTTGATCT  
 TTTCTACGGG GTCTGACGCT CAGTGAACG 5940  
 AAAACTCACG TTAAGGGATT TTGGTCATGA GATTATCAAA AAGGATCTTC ACCTAGATCC  
 TTTTAAATTA AAAATGAAGT TTTAAATCAA 6030  
 TCTAAAGTAT ATATGAGTAA ACTTGGTCTG ACAGTTACCA ATGCTTAATC AGTGAGGCAC  
 CTATCTCAGC GATCTGTCTA TTTGTTTCAT 6120  
 CCATAGTTGC CTGACTCCGG GGGGGGGGGG CGCTGAGGTC TGCCTCGTGA AGAAGGTGTT  
 GCTGACTCAT ACCAGGCCTG AATCGCCCCA 6210  
 TCATCCAGCC AGAAAGTGAG GGAGCCACGG TTGATGAGAG CTTTGTGTGA GGTGGACCAG  
 TTGGTGATTT TGAACTTTTG CTTTGCCACG 6300  
 GAACGGTCTG CGTTGTGCGG AAGATGCGTG ATCTGATCCT TCAACTCAGC AAAAGTTTGA  
 TTTATTCAAC AAAGCCGCCG TCCCGTCAAG 6390  
 TCAGCGTAAT GCTCTGCCAG TGTTACAACC AATTAACCAA TTCTGATTAG AAAAATCAT  
 CGAGCATCAA ATGAAACTGC AATTTATTCA 6480  
 TATCAGGATT ATCAATACCA TATTTTTGAA AAAGCCGTTT CTGTAATGAA GGAGAAAAT  
 CACCGAGGCA GTTCCATAGG ATGGCAAGAT 6570  
 CCTGGTATCG GTCTGCGATT CCGACTCGTC CAACATCAAT ACAACCTATT AATTTCCCCT  
 CGTCAAAAAT AAGGTTATCA AGTGAGAAAT 6660  
 CACCATGAGT GACGACTGAA TCCGGTGAGA ATGGCAAAAG CTTATGCATT TCTTTCCAGA  
 CTTGTTCAAC AGGCCAGCCA TTACGCTCGT 6750  
 CATCAAAATC ACTCGCATCA ACCAAACCGT TATTCATTCTG TGATTGCGCC TGAGCGAGAC  
 GAAATACGCG ATCGCTGTTA AAAGGACAAT 6840  
 TACAAACAGG AATCGAATGC AACC GGCGCA GGAACACTGC CAGCGCATCA ACAATATTTT  
 CACCTGAATC AGGATATTCT TCTAATACCT 6930

GGAATGCTGT TTTCCCGGGG ATCGCAGTGG TGAGTAACCA TGCATCATCA GGAGTACGGA  
 TAAAATGCTT GATGGTCGGA AGAGGCATAA 7020  
 ATTCCGTCAG CCAGTTTAGT CTGACCATCT CATCTGTAAC ATCATTGGCA ACGCTACCTT  
 TGCCATGTTT CAGAAACAAC TCTGGCGCAT 7110  
 CGGGCTTCCC ATACAATCGA TAGATTGTCTG CACCTGATTG CCCGACATTA TCGCGAGCCC  
 ATTTATACCC ATATAAATCA GCATCCATGT 7200  
 TGGAATTTAA TCGCGGCCCTC GAGCAAGACG TTTCCCGTTG AATATGGCTC ATAACACCCC  
 TTGTATTACT GTTTATGTAA GCAGACAGTT 7290  
 TTATTGTTCA TGATGATATA TTTTATCTT GTGCAATGTA ACATCAGAGA TTTTGAGACA  
 CAACGTGGCT TTCCCCCCCC CCCCATTATT 7380  
 GAAGCATTTA TCAGGGTTAT TGTCTCATGA GCGGATACAT ATTTGAATGT ATTTAGAAAA  
 ATAAACAAAT AGGGGTTCCTG CGCACATTTT 7470  
 CCCGAAAAGT GCCACCTGAC GTCTAAGAAA CCATTATTAT CATGACATTA ACCTATAAAA  
 ATAGGCGTAT CACGAGGCCC TTTCGTCCTC 7560  
 GCGCGTTTCG GTGATGACGG TGAAAACCTC TGACACATGC AGCTCCCGGA GACGGTCACA  
 GCTTGTCTGT AAGCGGATGC CGGGAGCAGA 7650  
 CAAGCCCGTC AGGGCGCGTC AGCGGGTGTT GCGGGGTGTC GGGGCTGGCT TAACTATGCG  
 GCATCAGAGC AGATTGTACT GAGAGTGCAC 7740  
 CATATGCGGT GTGAAATACC GCACAGATGC GTAAGGAGAA AATACCGCAT CAGATTGGCT AT  
 7802

SEQ ID NO:51

SIZE 7002

DNA: RO71 CMV-IL2-signal sequence + first 11 amino acids of IL-2 fused to T7 RNAP

TGGCCATTGC ATACGTTGTA TCCATATCAT AATATGTACA TTTATATTGG CTCATGTCCA  
 ACATTACCGC CATGTTGACA TTGATTATTG 90  
 ACTAGTTATT AATAGTAATC AATTACGGGG TCATTAGTTC ATAGCCCATA TATGGAGTTC  
 CGCGTTACAT AACTTACGGT AAATGGCCCCG 180  
 CCTGGCTGAC CGCCCAACGA CCCCCGCCCA TTGACGTCAA TAATGACGTA TGTTCCCATTA  
 GTAACGCCAA TAGGGACTTT CCATTGACGT 270  
 CAATGGGTGG AGTATTTACG GTAAACTGCC CACTTGGCAG TACATCAAGT GTATCATATG  
 CCAAGTACGC CCCCTATTGA CGTCAATGAC 360  
 GGTAAATGGC CCGCCTGGCA TTATGCCCAG TACATGACCT TATGGGACTT TCCTACTTGG  
 CAGTACATCT ACGTATTAGT CATCGCTATT 450  
 ACCATGGTGA TGCGGTTTTG GCAGTACATC AATGGGCGTG GATAGCGGTT TGA CTCACGG  
 GGATTTCCAA GTCTCCACCC CATTGACGTC 540  
 AATGGGAGTT TGTTTTGGCA CCAAAATCAA CGGGACTTTC CAAAATGTCTG TAACAACTCC  
 GCCCCATTGA CGCAAATGGG CGGTAGGCGT 630  
 GTACGGTGGG AGGTCTATAT AAGCAGAGCT CGTTTATGTA ACCGTCAGAT CGCCTGGAGA  
 CGCCATCCAC GCTGTTTTGA CCTCCATAGA 720

AGACACCGGG	ACCGATCCAG	CCTCCGCGGC	CGGGAACGGT	GCATTGGAAC	GCGGATTCCC
CGTGCCAAGA	GTGACGTAAG	TACCGCCTAT	810		
AGAGTCTATA	GGCCCACCCC	CTTGGCTTCT	TATGCATGCT	ATACTGTTTT	TGGCTTGGGG
TCTATACACC	CCCGCTTCCT	CATGTTATAG	900		
GTGATGGTAT	AGCTTAGCCT	ATAGGTGTGG	GTTATTGACC	ATTATTGACC	ACTCCAACGG
TGGAGGGCAG	TGTAGTCTGA	GCAGTACTCG	990		
TTGCTGCCGC	GCGCGCCACC	AGACATAATA	GCTGACAGAC	TAACAGACTG	TTCCTTTCCA
TGGGTCTTTT	CTGCAGTCAC	CGTCGTCGAC	1080		
CATGTACCGG	ATGCAGCTGC	TGTCTTGCAT	CGCCCTGTCT	CTGGCCCTGG	TGACCAACTC
TGCCCCCACC	TCTTCTTCTA	CCAAGAAGAC	1170		
CCAGGCCACA	ACCATGGGCC	ACCACCACCA	CCACCACGTG	ATGTACGGCC	GCAAGAAGCG
CCGCCAGCGC	CGCCGCGGCA	TGGACACGAT	1260		
TAACATCGCT	AAGAACGACT	TCTCTGACAT	CGAACTGGCT	GCTATCCCGT	TCAACACTCT
GGCTGACCAT	TACGGTGAGC	GTTTAGCTCG	1350		
CGAACAGTTG	GCCCTTGAGC	ATGAGTCTTA	CGAGATGGGT	GAAGCACGCT	TCCGCAAGAT
GTTTGAGCGT	CAACTTAAAG	CTGGTGAGGT	1440		
TGCGGATAAC	GCTGCCGCCA	AGCCTCTCAT	CACTACCCTA	CTCCCTAAGA	TGATTGCACG
CATCAACGAC	TGGTTTGAGG	AAGTGAAAGC	1530		
TAAGCGCGGC	AAGCGCCCGA	CAGCCTTCCA	GTTCTTGCAA	GAAATCAAGC	CGGAAGCCGT
AGCGTACATC	ACCATTAAGA	CCACTCTGGC	1620		
TTGCCTAACC	AGTGCTGACA	ATACAACCGT	TCAGGCTGTA	GCAAGCGCAA	TCGGTCGGGC
CATTGAGGAC	GAGGCTCGCT	TCGGTCGTAT	1710		
CCGTGACCTT	GAAGCTAAGC	ACTTCAAGAA	AAACGTTGAG	GAACAACTCA	ACAAGCGCGT
AGGGCACGTC	TACAAGAAAG	CATTTATGCA	1800		
AGTTGTGCGAG	GCTGACATGC	TCTCTAAGGG	TCTACTCGGT	GGCGAGGCGT	GGTCTTCGTG
GCATAAGGAA	GACTCTATTC	ATGTAGGAGT	1890		
ACGCTGCATC	GAGATGCTCA	TTGAGTCAAC	CGGAATGGTT	AGCTTACACC	GCCAAAATGC
TGGCGTAGTA	GGTCAAGACT	CTGAGACTAT	1980		
CGAACTCGCA	CCTGAATACG	CTGAGGCTAT	CGCAACCCGT	GCAGGTGCGC	TGGCTGGCAT
CTCTCCGATG	TTCCAACCTT	GCGTAGTTCC	2070		
TCCTAAGCCG	TGGACTGGCA	TTACTGGTGG	TGGCTATTGG	GCTAACGGTC	GTCGTCCTCT
GGCGCTGGTG	CGTACTCACA	GTAAGAAAGC	2160		
ACTGATGCGC	TACGAAGACG	TTTACATGCC	TGAGGTGTAC	AAAGCGATTA	ACATTGCGCA
AAACACCGCA	TGGAAAATCA	ACAAGAAAGT	2250		
CCTAGCGGTC	GCCAACGTAA	TCACCAAGTG	GAAGCATTGT	CCGGTCGAGG	ACATCCCTGC
GATTGAGCGT	GAAGAACTCC	CGATGAAACC	2340		
GGAAGACATC	GACATGAATC	CTGAGGCTCT	CACCGCGTGG	AAACGTGCTG	CCGCTGCTGT
GTACCGCAAG	GACAAGGCTC	GCAAGTCTCG	2430		
CCGTATCAGC	CTTGAGTTCA	TGCTTGAGCA	AGCCAATAAG	TTTGCTAACC	ATAAGGCCAT
CTGGTTCCCT	TACAACATGG	ACTGGCGCGG	2520		

TCGTGTTTAC	GCTGTGTCAA	TGTTCAACCC	GCAAGGTAAC	GATATGACCA	AAGGACTGCT
TACGCTGGCG	AAAGGTAAAC	CAATCGGTAA	2610		
GGAAGGTTAC	TACTGGCTGA	AAATCCACGG	TGCAAACGTG	GCGGGTGTCTG	ATAAGGTTCC
GTTCCCTGAG	CGCATCAAGT	TCATTGAGGA	2700		
AAACCACGAG	AACATCATGG	CTTGCGCTAA	GTCTCCACTG	GAGAACAATT	GGTGGGCTGA
GCAAGATTCT	CCGTTCTGCT	TCCTTGCGTT	2790		
CTGCTTTGAG	TACGCTGGGG	TACAGCACCA	CGGCCTGAGC	TATAACTGCT	CCCTTCCGCT
GGCGTTTGAC	GGGTCTTGCT	CTGGCATCCA	2880		
GCACTTCTCC	GCGATGCTCC	GAGATGAGGT	AGGTGGTCGC	GCGGTAACT	TGCTTCCTAG
TGAAACCGTT	CAGGACATCT	ACGGGATTGT	2970		
TGCTAAGAAA	GTCAACGAGA	TTCTACAAGC	AGACGCAATC	AATGGGACCG	ATAACGAAGT
AGTTACCGTG	ACCGATGAGA	ACACTGGTGA	3060		
AATCTCTGAG	AAAGTCAAGC	TGGGCACTAA	GGCACTGGCT	GGTCAATGGC	TGGCTTACGG
TGTTACTCGC	AGTGTGACTA	AGCGTTCAGT	3150		
CATGACGCTG	GCTTACGGGT	CCAAAGAGTT	CGGCTTCCGT	CAACAAGTGC	TGGAAGATAC
CATTACGCCA	GCTATTGATT	CCGGCAAGGG	3240		
TCTGATGTTT	ACTCAGCCGA	ATCAGGCTGC	TGGATACATG	GCTAAGCTGA	TTTGGAATC
TGTGAGCGTG	ACGGTGGTAG	CTGCGGTTGA	3330		
AGCAATGAAC	TGGCTTAAAGT	CTGCTGCTAA	GCTGCTGGCT	GCTGAGGTCA	AAGATAAGAA
GACTGGAGAG	ATTCTTCGCA	AGCGTTGCGC	3420		
TGTGCATTGG	GTAACCTCTG	ATGGTTTCCC	TGTGTGGCAG	GAATACAAGA	AGCCTATTCA
GACGCGCTTG	AACCTGATGT	TCCTCGGTCA	3510		
GTTCCGCTTA	CAGCCTACCA	TTAACACCAA	CAAAGATAGC	GAGATTGATG	CACACAAACA
GGAGTCTGGT	ATCGCTCCTA	ACTTTGTACA	3600		
CAGCCAAGAC	GGTAGCCACC	TTCGTAAGAC	TGTAGTGTGG	GCACACGAGA	AGTACGGAAT
CGAATCTTTT	GCACTGATTC	ACGACTCCTT	3690		
CGGTACCATT	CCGGCTGACG	CTGCGAACCT	GTTCAAAGCA	GTGCGCGAAA	CTATGGTTGA
CACATATGAG	TCTTGTGATG	TACTGGCTGA	3780		
TTTCTACGAC	CAGTTCGCTG	ACCAGTTGCA	CGAGTCTCAA	TTGGACAAAA	TGCCAGCACT
TCCGGCTAAA	GGTAACTTGA	ACCTCCGTGA	3870		
CATCTTAGAG	TCGGACTTCG	CGTTCGCGTA	ACGCCAAATC	AATACGACTC	CGGATCTGAA
CTTGTTTATT	GCAGCTTATA	ATGGTTACAA	3960		
ATAAAGCAAT	AGCATCACAA	ATTTACAAA	TAAAGCATTT	TTTTCACTGC	ATTCTAGTTG
TGGTTTGTCC	AAACTCATCA	ATGTATCTTA	4050		
TCATGTCTGG	ATCTGGTTAC	ATCGAATTCA	CGTGGGCCCCG	GTACCGTATA	CTCTAGAGCG
GCCGCGGATC	CAGATCTTTT	TCCCTCGCCA	4140		
AAAATTATGG	GGACATCATG	AAGCCCCTTG	AGCATCTGAC	TTCTGGCTAA	TAAAGGAAAT
TTATTTTATT	GCAATAGTGT	GTTGGAATTT	4230		
TTTGTGTCTC	TCACTCGGAA	GGACATATGG	GAGGGCAAAT	CATTTAAAAC	ATCAGAATCA
GTATTTGGTT	TAGAGTTTGG	CAACATATGC	4320		

CATTCTTCCG	CTTCCTCGCT	CACTGACTCG	CTGCGCTCGG	TCGTTCCGGCT	GCGGCGAGCG
GTATCAGCTC	ACTCAAAGGC	GGTAATACGG	4410		
TTATCCACAG	AATCAGGGGA	TAACGCAGGA	AAGAACATGT	GAGCAAAAAG	CCAGCAAAAAG
GCCAGGAACC	GTAAAAAGGC	CGCGTTGCTG	4500		
GCGTTTTTCC	ATAGGCTCCG	CCCCCTGAC	GAGCATCACA	AAAATCGACG	CTCAAGTCAG
AGGTGGCGAA	ACCCGACAGG	ACTATAAAGA	4590		
TACCAGGCGT	TTCCCCCTGG	AAGCTCCCTC	GTGCGCTCTC	CTGTTCCGAC	CCTGCCGCTT
ACCGGATACC	TGTCCGCCTT	TCTCCCTTCG	4680		
GGAAGCGTGG	CGCTTTCTCA	ATGCTCACGC	TGTAGGTATC	TCAGTTCGGT	GTAGGTCGTT
CGCTCCAAGC	TGGGCTGTGT	GCACGAACCC	4770		
CCCGTTTCAGC	CCGACCGCTG	CGCCTTATCC	GGTAACTATC	GTCTTGAGTC	CAACCCGGTA
AGACACGACT	TATCGCCACT	GGCAGCAGCC	4860		
ACTGGTAACA	GGATTAGCAG	AGCGAGGTAT	GTAGGCGGTG	CTACAGAGTT	CTTGAAGTGG
TGGCCTAACT	ACGGCTACAC	TAGAAGGACA	4950		
GTATTTGGTA	TCTGCGCTCT	GCTGAAGCCA	GTTACCTTCG	GAAAAAGAGT	TGGTAGCTCT
TGATCCGGCA	AACAAACCAC	CGCTGGTAGC	5040		
GGTGGTTTTT	TTGTTTGCAA	GCAGCAGATT	ACGCGCAGAA	AAAAAGGATC	TCAAGAAGAT
CCTTTGATCT	TTTCTACGGG	GTCTGACGCT	5130		
CAGTGGAACG	AAAACTCACG	TTAAGGGATT	TTGGTCATGA	GATTATCAAA	AAGGATCTTC
ACCTAGATCC	TTTTAAATTA	AAAATGAAGT	5220		
TTTTAAATCAA	TCTAAAGTAT	ATATGAGTAA	ACTTGGTCTG	ACAGTTACCA	ATGCTTAATC
AGTGAGGCAC	CTATCTCAGC	GATCTGTCTA	5310		
TTTCGTTTCAT	CCATAGTTGC	CTGACTCCGG	GGGGGGGGGG	CGCTGAGGTC	TGCCTCGTGA
AGAAGGTGTT	GCTGACTCAT	ACCAGGCCTG	5400		
AATCGCCCCA	TCATCCAGCC	AGAAAGTGAG	GGAGCCACGG	TTGATGAGAG	CTTTGTTGTA
GGTGGACCAG	TTGGTGATTT	TGAACTTTTG	5490		
CTTTGCCACG	GAACGGTCTG	CGTTGTCTGG	AAGATGCGTG	ATCTGATCCT	TCAACTCAGC
AAAAGTTCGA	TTTATTCAAC	AAAGCCGCCG	5580		
TCCCGTCAAG	TCAGCGTAAT	GCTCTGCCAG	TGTTACAACC	AATTAACCAA	TTCTGATTAG
AAAAACTCAT	CGAGCATCAA	ATGAAACTGC	5670		
AATTTATTCA	TATCAGGATT	ATCAATACCA	TATTTTTGAA	AAAGCCGTTT	CTGTAATGAA
GGAGAAAAC	CACCGAGGCA	GTTCCATAGG	5760		
ATGGCAAGAT	CCTGGTATCG	GTCTGCGATT	CCGACTCGTC	CAACATCAAT	ACAACCTATT
AATTTCCCCT	CGTCAAAAAT	AAGGTTATCA	5850		
AGTGAGAAAT	CACCATGAGT	GACGACTGAA	TCCGGTGAGA	ATGGCAAAAG	CTTATGCATT
TCTTTCCAGA	CTTGTTCAAC	AGGCCAGCCA	5940		
TTACGCTCGT	CATCAAAATC	ACTCGCATCA	ACCAAACCGT	TATTCATTCT	TGATTGCGCC
TGAGCGAGAC	GAAATACGCG	ATCGCTGTTA	6030		
AAAGGACAAT	TACAAACAGG	AATCGAATGC	AACCGGCGCA	GGAACACTGC	CAGCGCATCA
ACAATATTTT	CACCTGAATC	AGGATATTCT	6120		

TCTAATACCT	GGAATGCTGT	TTTCCCGGGG	ATCGCAGTGG	TGAGTAACCA	TGCATCATCA	
GGAGTACGGA	TAAAATGCTT	GATGGTCGGA	6210			
AGAGGCATAA	ATTCCGTCAG	CCAGTTTAGT	CTGACCATCT	CATCTGTAAC	ATCATTGGCA	
ACGCTACCTT	TGCCATGTTT	CAGAAACAAC	6300			
TCTGGCGCAT	CGGGCTTCCC	ATACAATCGA	TAGATTGTCT	CACCTGATTG	CCCGACATTA	
TCGCGAGCCC	ATTTATACCC	ATATAAATCA	6390			
GCATCCATGT	TGGAATTTAA	TCGCGGCCTC	GAGCAAGACG	TTTCCCGTTG	AATATGGCTC	
ATAACACCCC	TTGTATTACT	GTTTATGTAA	6480			
GCAGACAGTT	TTATTGTTCA	TGATGATATA	TTTTTATCTT	GTGCAATGTA	ACATCAGAGA	
TTTTGAGACA	CAACGTGGCT	TTCCCCCCCC	6570			
CCCCATTATT	GAAGCATTTA	TCAGGGTTAT	TGTCTCATGA	GCGGATACAT	ATTTGAATGT	
ATTTAGAAAA	ATAAACAAAT	AGGGGTTCCG	6660			
CGCACATTTT	CCCGAAAAGT	GCCACCTGAC	GTCTAAGAAA	CCATTATTAT	CATGACATTA	
ACCTATAAAA	ATAGGCGTAT	CACGAGGCCC	6750			
TTTCGTCCTC	GCGCGTTTCG	GTGATGACGG	TGAAAACCTC	TGACACATGC	AGCTCCCGGA	
GACGGTCACA	GCTTGTCTGT	AAGCGGATGC	6840			
CGGGAGCAGA	CAAGCCCGTC	AGGGCGCGTC	AGCGGGTGTT	GGCGGGTGTC	GGGGCTGGCT	
TAACATGCG	GCATCAGAGC	AGATTGTACT	6930			
GAGAGTGCAC	CATATGCGGT	GTGAAATACC	GCACAGATGC	GTAAGGAGAA	AATACCGCAT	
CAGATTGGCT	AT		7002			